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THE

MARYLAND FARMER:

DEVOTED TO

Agriculture, Horticulture, and Rural Economy.

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The Resources of the United States for Sheep Husbandry and the Wool Manufacture.

THE ADDRESS OF HON. JOHN L. HAYES.

CONCLUDED.

"Long-combing wools and mutton sheep may be grown anywhere in New England or New York, if the deficiency of natural pasturage is supplied; that is, there is no necessary obstacle in the soil, as there is said to be on the prairies and alkali lands of the Plains and California. The disadvantage of natural infertility in the soil of New England may be counterbalanced by nearness to city markets. But certain districts are pre-eminently fitted by nature for these sheep. The limestone soils are peculiarly congenial to them. There can be no more favorable districts than such as are found in Kentucky and Middle Tennessee, where the nourishing blue-grass on limestone soils affords permanent pastures, and the sheep require no feeding except when there is a fall of snow. Upon these pastures, where one acre will feed three sheep, the Leicesters thrive even better than their ancestors did on the rich clay-lands of Kent.

* * * * * *

Southern sheep experts consider the range of the "fair Blue Ridge of the South as one of the most favored spots in America" for the class of wools in question. In still lower latitudes, on the rich bottom-lands of the southern coast, we find a new, or rather very ancient, variety,—the broad-tailed sheep of Syria and of the Bible,—producing a long wool and excellent early maturing mutton. The South possesses, besides ,an invaluable lanigerous animal, with a combing fibre,— the Angora goat, which is found in absolutely pure flocks, perfectly acclimated, in Virginia; while the mountains of the Appalachian chain furnish a climate and sustenance corresponding to those existing in its native *habitat*.

The question arises as to the domestic demand for the products of the mutton and long-woolled sheep. Of English combing wools, our consumption is not far from eight million pounds. The United States produces from three to four million pounds, so that about one half of our supply must still be obtained from Canada and England. We ought not go abroad for a pound of these wools. The demand for mutton is illustrated by the consumption in a single locality. In the year ending last May, 272,000 sheep and lambs were slaughtered at the Brighton abattoir. Twenty thousand sheep and lambs were brought to that market from Kentucky. When our people are educated to eat mutton (as they will be), through a supply of a better article, ten times as much will be consumed as now. The danger is that we will have a scarcity, and not a surfeit, of mutton. Europe threatens to drain us of what little we have. Steamers from Boston have carried to Europe 4,174 sheep since January 1: 185, in three months; in April 788; May, 680; June, 588; and July, 1,933. So rapidly is this traffic increasing that the Cunard line is removing their state-rooms to accommodate their ovine passengers.

It is evident, from this brief review of our national resources in sheep husbandry, that what Milton calls "the fleecy wealth" of this country has hardly commenced its development. The encouraging signs for the future are the attention which sheep culture has received of late from many of the State boards of agriculture; the appeals of the great statesmen of the South in behalf of this industry; and, above all, the recent invaluable reports upon this special subject from the eminent official agriculturists, Mr. Dodge, of the Department of Agriculture, Mr. Janes of Georgia, and Mr. Killebrew of Tennessee, whose lessons I have not aspired to supplement, but only to confirm.

It was my intention to discuss in detail the resources of the United States for the wool manufacture. The time I have already occupied will limit me to a very brief summary, and to an illustration, by samples of fabrics, of the skill we have attained in the manufacture. The most important

of our resources for the wool manufacture, raw material, I have already described. We export no wool; and the whole of the 208,000,000 pounds at present produced is consumed at home. The command of domestic wool is as necessary for the home manufacture as water is for a mill. We should cease manufacturing if we were compelled to import all our wools. These wools supply nine-tenths of the raw material consumed by the nine thousand sets making card-wool fabrics. And the wool for its purpose is certainly unsurpassed, and I believe unequaled, by any in the world. Our deficiencies are superfine wools, of which but little is required, and carpet wools, which are grown only in barbarous countries, and a partial deficiency of combing wools. Of woollen machinery we had in 1870 10,073 sets, including those for carpets and worsteds (the number having remained nearly stationary since), which produced in that year fabrics of the value of $217,568,824. As to the character of this machinery, we have all the best machines in use abroad; and, in the exact language of one of the most eminent experts in Europe, in a letter addressed to myself: "The greatest part of your own invented machinery is superior to the English, German, or French machinery." In adaptation to its purpose, in strength with lightness, and in perfection of workmanship, I believe no textile machinery in the world will compare with ours. Not the least of our advantages are the intelligence and taste of our people, which compel us to excellence in our fabrication. An intelligent Belgian says: "It is a grave error to suppose that any thing is good enough for for America. The American is intelligent and of good taste: no other than good merchandise, of honest and elegant fabrication, is used or in request by him." The testimony of the same foreigner, the official reporter on woollens at the Centennial to the Belgian government, will be received as an impartial statement as to the general character of our woollen fabrics. He says: —

"I ought to avow that I was astonished to see the rich, the interesting collection of cloths and stuffs of the American manufacturers. In carefully examining these superb displays of the 'Pacific,' the Washington, the 'Missions,' the Pontoosuc Woollen Mills, and of many other important manufacturers, no impartial person could fail to recognize and frankly avow that the United States may be placed in the rank of the first manufacturers of the world."

To prove these assertions, but more to make known to you the uses to which our various domestic wools are applied, I place before you a few samples of American wool manufacturers.

[A series of samples of American wool fabrics were here exhibited, and their characteristics explained.]

In conclusion, the speaker, pointing out the American bunting, with which he closed the illustration of domestic fabrics, observed: The flag in general symbolizes our political independence; the one before you specially illustrates our industrial independence. Before the war,— to our shame be it spoken — there was not a strip of bunting floating over a national ship or fort which had not been made in England. The war taught self-reliance to the South as well as the North. We resolved to make our own flag. And we improved upon the making: for the stars were formerly made separately, and sewed on; but now each star symbolizing a State,— each, thank God! shining with equal splendor in our political firmament,— all the symbolic stars are woven imperishably into the web of the Union. The emblem of the nation represents not only its independence, political and industrial, but the *inter-dependence* of its parts. How distinct and contrasting are the hues of the red, the white, and the blue! Not less distinct are the three great productive agencies of the country,— its agriculture, its manufactures, and its domestic commerce; not less distinct are our great geographical sections,— the North, the South, and the West. Each color in the stars, bars, and field, enhancing even by their very contrast the vividness of the separate hues, is needed to fill the eye with harmony as well as splendor. So do agriculture, manufactures, and commerce; so do the North, South, and the West, even while working strictly in their separate spheres,— react one upon the other; enhancing each other's power, reflecting each other's splendor, and making that perfect and harmonious whole,—the national prosperity."

[This able and instructive and encouraging Essay has occupied pages of several numbers of the MARYLAND FARMER, and we are sure our readers have been profited by the perusal and interested as we have been. We regret we could not have given it as a whole, for its beauty and comprehensive arrangement has been somewhat spoiled by the necessity on our part to cut it up in installments to suit our limited space. This Essay, to every sheep-breeder, is worth the whole year's subscription to the MARYLAND FARMER. With this Essay and one or two authorities on sheep-breeding, their diseases, &c., suited to the South, West and East, the farmers of our country will not only see the importance of wool and mutton, but we think cannot refrain from embarking more into rearing sheep, as a certain valuable aid to the annual incomes from their farms, if not in the end, proving the chief source of individual wealth at comparatively small annual cost. EDS. MD. FAR.]

FARM WORK FOR JUNE.

The corn crop, late potato crop, and the root crops, such as beets, parsnips, carrots and mangels should have been all planted last month, but if not, no time is to be lost in getting all in the ground. There is but little use in planting any one of these unless the ground was deeply plowed made rich and perfectly prepared.

TOBACCO.

The land intended for this crop should now be put in order by frequent harrowing, and if cloddy, rolled, so as to pulverize the ground ; cross plow if necessary and keep light, clean of grass and have it well enriched with well rotted stable manure, ashes or some fertilizer which contains potash in large quantity. We have found that a preparation of two parts plaster and one part saltpetre, well manipulated together, and sown broadcast at the rate of 60 or 80 pounds of the mixture per acre, just before the hills are made, was exceedingly beneficial to the early starting of the young plants and to their after growth. Plant as early as possible. Small plants will stand better early planted, than larger ones will do planted late in the season when the ground is hot and the sun has more power. As soon as the plants take root, they should be weeded by use of the hoe in scraping the earth lightly from the plants and the top of the hill, and running a small plow twice in the rows bar-side next the plants. This operation requires some skill on the part of the plowman. In a week the double shovel plow or cultivator should go across the last working, if the tobacco be in hills, or if in drills, then of course, the same way it was plowed. As soon as the plants have been "wed-out," a small quantity, half a tea-spoonfull of plaster should be put on each plant, this is called "budding with plaster." Should worms appear, they must be carefully caught and killed. An intelligent farmer of Prince George's county, last year mixed a small quantity of Paris Green with plaster, we think 1 part to 20 of plaster, and thereby destroyed the first glut of worms which sometimes does great damage to the crop by checking its early growth, and when they are not got rid of, insures certain increased amount of these destroyers when the tobacco is near ripening, when perhaps it might not be safe to use the poison. But we learn that Paris Green is as deadly a poison to the tobacco worm and horn-blower as it is to the Colorado Beetle, so destructive to the potato vine. Tobacco is now looking up, and good, well conditioned, fair colored, unworm-eaten tobacco brings a good price ; common tobacco is a drug and unsaleable, hence, it behooves every planter to strive and send his tobacco in prime order to his commission merchant if he wants fair prices. It teaches another great lesson which should be heeded in time, and *now is the time*. That is, plant no more than you have *rich* land for, and not a plant more than you can *work well, keep clear of worms, house carefully, with enough house-room, and proper means of curing well, and "conditioning" thoroughly after assorting, and packing neatly in well coopered hogs-heads*. These conditions strictly adhered to, will give fair remuneration for labor and capital expended in growing this valuable yet deeply over-taxed product of our land—the *once* equivalent for specie in this country, now the worse treated, and most oppressed by our government of any of the productions of farming. Burthened, as it is, with tyranical discrimination, it should nett an extraordinary high price to its producers. Grain or cotton can be sold to anybody in any quantity, but tobacco cannot be sold to any person but him who is *licensed* to buy it, and not *then* until it has been subjected to official inspection. This iniquity, planters tamely submit to, and go on daily to toil in growing it, making nothing, grumbling, yet working harder and harder to help manufacturers to grow rich and to swell the treasury of the government.

CORN.

The great secret of making a good crop of corn is, we believe, in thorough cultivation *before* planting, of course in fertile soil or soil which has been highly fertilized, or better still. heavily manured, and the land kept light and friable, free from weeds or grass, by frequent stirring with shovel plows or cultivators, which will be necessary to be done every seven or ten days after the corn is six inches high until it shows signs of tasseling. After planting, it should be passed over with the smoothing harrow, the same way it was planted, and as soon as it peeps above ground, pass the smoothing harrow across the rows, or across the way it was harrowed before. We object to too close planting. Corn requires air and sun to make a large product. If drill corn, we would object to any closer than 40 inches between the drill and 18 inches in the drill, with one or two stalks in a place or single stalks 15 to 20 inches apart. If in checks we would say 3 by 5 feet and two stalks in a hill. If suckers are to be pulled off, let it be done before they are a foot high. If they get higher they will bleed the corn too much, better let them stand. It is rarely we have found corn yield less from having had the suckers left on — in growing corn for seed there may be something in the idea that the grain may degenerate by being fructified by pollen from the sucker tassels. But we are inclined to the

opinion that the tassels of the suckers perfect the pollen too late to affect the corn borne on the main stalks. We believe, from our long experience in growing corn very extensively, that the infertility of stalks is increased by close planting and too many in a hill. Under the old system of two stalks to a hill, and the hill 4 or 5 feet apart, there was not a stalk in a thousand to be found which had not a perfect ear, whether it was a long or short ear. The nubbins were part of the extra number of ears to a hill.

CLOVER HAY.

During this month clover will be ready for conversion into hay. It is best to cut clover after the dew is off, and in the evening gather it into cocks of about 100 pounds. Here let it cure for one or two days, then open the cocks after the sun has dried the stubble, and in an hour or so, haul it to the barn or the the rick. Sow a little salt between the layers of hay. Clover hay should be handled in the airing as little as possible, and it suffers from wet or damp more than any other grass, so that a dry spell should if possible be embraced to make clover hay.

CORN, MILLET, &C. (for forage or provender.)

Every one who owns a cow or horse and a small farm, and every one who farms on a large scale, should sow more or less corn, either broadcast or drilled, or millet to feed in the green state or to be cured as provender. Either one takes the place of hay, and even when hay is abundant, is good as a change of long feed for stock. It is to be hoped that many trials will be made this year by our farmers of the French Ensilage system of securing corn for winter feeding. We believe it can be done with little trouble or expense. To have a supply of this corn-sour-krout, as green food for milch cows in winter must be a very valuable and healthful addition to their food. It is relished by sheep and cattle and said to be nourishing and as cheap food as can be supplied. This method of preserving green corn stalks and fodder, millet and other green products is certainly a discovery that must eventually lead to grand results. Farmers will be enabled to keep more stock and to fatten many more in winter than they can keep on summer pastures.

SHEEP SHEARING.

This month the sheep should be shorn of their fleeces. It is economical to employ experts to do this work, and humanity demands that these patient, submissive creatures be subjected to no cruelty when yielding their wool. Owners should personally see that they are treated gently and tenderly and not have their skins cut along with the wool. We have seen poor sheep that looked after "shearing," more like they were skinned than sheared. The wool should be evenly and closely shorn, the sheep submitted to no harsh treatment, and housed at night for a few nights after they are sheared, and during cold rains. A few days after shearing the old sheep, the lambs ought to be dipped in what is called, tobacco water, a weak infusion of tobacco, to which a little soft-soap may be added. This dipping destroys all insects of every sort. Care should be taken in dipping the lambs or old sheep, to keep the heads free, so that the liquid does not get into the eyes. One minute in the liquid is long enough for the sheep to remain. Then stand it up, press the wool to drain off the fluid and turn on a green plot. Only do this during a mild or warm sun-shiny day, so they will dry off quickly. It is a good old practice to smear tar over the nose of each sheep, as it is sheared or dipt in the steep above referred to.

STOCK OF ALL KINDS.

Now that the stock are mostly at pasture, they should be provided with plenty of salt and fresh clear water, accessable at all times. Hogs should have rings in their noses to prevent rooting. Sheep ought to be provided with a plenty of bells as a preventive against dogs. If cows with calves are kept in the same field with sheep, they will effectually prevent dogs from attacking or injuring sheep, it is said by a great many persons who have tried the plan.

HARVEST.

The season being backward, it is not likely harvest will begin before July in this section, but it is well to prepare in time for it. Provide all the implements and have them in good order, and engage all the extra labor that will be needed at that busy season. Make all your preparations to secure your wheat crop, when it is in a proper state to harvest, in the shortest time possible. A few days at harvest time, makes often vast differences in the profits of the crop.

AGRICULTURAL MACHINES.

Every farmer who can afford it, and small farmers should combine and own in common, a horse hay rake, a hay tedder and a grass mower. The mower and the rake are indispensable at this time on a farm. They are great labor-savers, pay for themselves in a season, in the greater amount of hay saved, in the superior manner which the work is done, and in the time—so precious in hay harvest—saved. The tedder is also a very efficient labor-saving implement. Now all these not only save time and labor, do the work more effectually, but afford actual pleasant recreation rather than wearying employment. A young man can ride and cut the grass, and a young lady take a drive, raking the hay while enjoying herself.

For the Maryland Farmer.

CITY FARMERS.

BY D. Z. EVANS, JR.

While there are so many who are ever ready to cry down the efforts of what they are pleased to style "book farming," they are ever on the alert, if farmers, to profit by their experiences. A merchant who, by dint of hard brain labor for years, has secured considerable ready cash, buys a farm and at once commences to improve it. The best of everything is procured; new varieties of choice fruit are planted, new machines are bought and a thorough trial given, new and improved breeds of live stock are procured, by a liberal out-lay of cash, and their respective merits given a trial; the different kinds of commercial fertilizers are given a chance to prove their respective merits—in reality the place is what might be termed an experimental farm, where no expense is spared to make the trials as thorough as possible. The neighboring farmers, as a rule, make anything but pleasant comments on the city farmers commendable zeal in trying to discover the best, and stand aloof ready to say, "I told you so," should the enterprise be a failure, which it usually is, as far as he who makes the expenditures is concerned. Yet just such a man will do a vast amount of good in any neighborhood, aside from the mere improvement of the farm and it should be to the interest of farmers to have just such a man in their midst.

Many of the farmers would like to know, practically, of the merits of this breed of cattle, that breed of sheep or swine, yet they cannot spare the cash to secure such animals themselves. In comes the city farmer, with his cash, and buys just such breeds as they were longing to know more about, and the farmers can profit by his experience without the outlay of a single dollar. So it is with the different varieties of fruits. But few farmers can afford to buy and experiment with a large number of different varieties, to find which are best suited to their particular soil and climate, and our enterprising city gent steps in and saves them expense. He buys and breeds improved kinds of poultry, and the farmers can see which suit their own needs best, when they can secure eggs or young fowls for themselves. There is a new harrow or a new plow about which they have read and heard a great deal, but want of spare cash prevents them from giving the things a trial on their own farms, but their more fortunate and liberal city friend has them on his place in operation, and the farmers can drop over to see how the new fangled things work.

The city farmer, as a rule, does not expect to reap a pecuniary success, his profits coming to him in the form of the great satisfaction it gives him to own, breed and use the improved in all departments of farming, and he usually takes pleasure in having his operations tend to the enlightenment and comfort of the farmers in his neighborhood While these self same men from the city have found it to cost them many times over, to keep the farm running, what they have or expect to rerlize in cash, yet the loss is abundantly made up by the value it is to the farmers, and just such men have helped the community, in all sections, for more than than they are willing to admit, even to themselves.

Relations of Science to Agriculture.

The paper of Prof. Eugene W. Hilgard of the California Agricultural University, upon "The Relations of Science to Agriculture," read to the National Agricultural Congress, at New Haven, Conn., Sept. 28th, 1878, was a strong plea for cultured brain labor in connection with farm labor. In the manner of teaching agriculture, the old country was a trifle ahead of this. All farm manual should be combined with intellectual labor. A college farm should be an experimental as well as a model farm. It is not to learn how to plough, hoe and reap, but how to do it and when and why, that a young man should go to college. The acts themselves can be learned without ever leaving the farm. Teachers of agriculture should have practice in running a farm for money, or business principles, before attempting to teach at all. Primary instruction in Europe and America are equally faulty. The want of proper teachers is felt. Invest the country in a measure with some of the attractions with which it is viewed by one scientifically educated, and the rush of the young men to the cities will cease and the agricultural colleges begin to fill up. The primary school of today fails to lead the farmer's boy to any higher appreciation of his father's pursuit.

Agricultural experiment stations were highly commended, as opening up new fields in agriculture, and in many ways affording great aids to all classes of agriculturists. Such stations were especially valuable in connection with agricultural colleges. The Connecticut station was highly spoken of, especially for the great work it had done in examining, testing and reporting fertilizers. The author believed in the chemical analysis of soils, and thought much knowledge was thus gained, in a shorter time than in any other manner, of the value and properties of soil. Defects in soil can be found and remedied, and thousands of acres made valuable by chemical analysis. Lecture circuits were favored as being of advantage to teachers and farmers, and much good might thus be done.

HIGH FARMING.

[*From the Southern Live Stock Journal.*]

"There is a farm in France, G. DeCrombeque, proprietor, containing 686 acres, which annually fattens 400 head of beeves, worth $68,000; produces 9,625 bushels of wheat and 6000 tons of beets, besides a great variety of crops. The average yield of wheat is stated to be 44 to 46 bushels per acre. The yield of sugar beets is estimated at 24 tons per acre. Four or five thousand tons of manure is saved upon the farm. Artificial manure is also manufactured from refuse matter upon the place. The yearly produce of sugar is 900 tons.

In England, the farm of Mr. Mechi, in Essex, containing 170 acres, has a world-wide reputation. The soil is extremely hard to till, naturally, but it has been thoroughly drained. The wheat crop averages from 40 to 50 bushels per acre—as high as 64 bushels has been harvested. Thirty-five to forty bushels of mangolds are produced to the acre, and other crops proportionately large. The farm pays 12½ per cent. on the investment after defraying all expenses, allowing $10 per acre as rent. The capital invested on each acre, including stock, implements, labor, &c., amounts to $80. These two farms are cited to show what can be done by "high farming" upon high priced lands in a section of country densely populated. What can be done in England and France, can be accomplished in this country. By scientific farming where the greatest amount of intellect is brought into action and where the science of agriculture is fully understood and practiced, the possible yield of an acre of land is beyond the present capability of the mind to estimate. As a country becomes more thickly settled and lands necessarily increase in value, it becomes the farmer to practice more perfectly and more extensively a system of agriculture based upon scientific principles. The old ruts must be abandoned, and a newer path blazed out. Intelligence in the full meaning of the phrase must necessarily be called into requisition. The examples cited as illustrations of "high farming" and showing the capabilities of production upon land under the most approved system of intelligent and scientific culture, are but head-lights to point out to us the way to a more enlightened agriculture."

The farmer who has no sheep should be making arrangements to procure a small flock or nucleus for more extended operations.—Sheep pay if properly taken care of—not ten per cent. but two hundred per cent. and money invested in them is more secure than in a savings bank.—*Our Home Journal.*

Pearl Millet.

"The Pearl millet is nothing in the world but the well known "cat tail millet" that is so familiar to our Southern farmers. It is a prolific forage, but there is not much substance to it. Any quantity of the seed can be bought from Mark W. Johnson, of Atlanta, for 20 cents a pound, something of a saving over $1 60 a pound This millet can be cut four or five times a year. The writer has raised it for several years, having a small patch in drill for cutting green for cattle. Pearl Millet is treated by Mr. Henderson as a new forage plant, when it is an old one. The German Millet is, in every way superior to it, so far as nutrition is concerned. The cat tail millet gets its name from its seed stalks looking like the cat tails that every school boy is familiar with, as growing on marshy grounds.

We hope our exchanges will explain this and all such silly frauds, that people may not be deluded. The cat tail millet is a fair forage plant, and every farmer should have a patch for green soiling. But let no one be simple enough to pay Mr. Henderson his extravagant fancy prices for seed under a fancy spurious name when the same thing under its proper name can be bought for one-sixth the price."—*Planter and Grange, Atlanta, Ga.*

When doctors disagree, who is to decide? Will Mr. Henderson rise and explain? We published Mr. Henderson's article on Pearl Millet, and believed it was something new, relying upon his high reputation as a writer on horticulture, and long practical experience as gardener, florist, and farmer, and we still have faith in what he says of what he calls "Pearl,"—but what our highly respectable cotemporary calls "cat-tail" millet. A rose by any other name would smell as sweet, yet we like things to be designated by their right or old names to prevent deception. We felt it due to our readers to give this statement, and await results. If "cat-tail" is so prolific a variety of millet as a forage plant, it is strange it has never been before introduced extensively. The *Rural New Yorker*, high authority,—will also be taken aback, if after all the expense it incurred in illustrating millets, and this variety especially, to show its wonderful growth from one seed, and how few seed were required on rich, well prepared ground, for one acre, if it is convinced by the *Planter and Grange*, that they, with Mr. Henderson, have been dressing up "an old ewe in lamb-fashion."

The cost of keeping horses is greater than that of keeping oxen. With horses you lose in a great measure what you feed out, as horses can't be sold for beef. For instance, you purchase a pair of oxen in the spring for $50, work them kindly, care for them through the season, and sell them for $80 or $90, or quite an advance on first cost.—*Rural Sun.*

Garden Work for June.

June is a busy month with those who have a garden. If the weather be dry, water the strawberry beds well, twice a week. Not a sprinkling, but make the ground wet. They require much moisture as the fruit is forming and ripening.

Peas, Snap-beans, Radishes, and Small Salading.—Sow seeds of these every two weeks to keep up a succession.

Lettuce.—Transplant for heading and sow some seeds of Coss variety.

Cauliflower, Brocoli and Late Cabbage.—Sow in open beds, seeds of these for late planting and use in fall and winter. Let the beds be rich and finely raked.

Melons, Cucumbers, Squash and other vines.—Keep clean of weeds, and the earth loose until the vines begin to cover the ground. If flies or bugs attack them, keep them well dusted with soot, fine sand with flour of sulphur, ashes, &c.

Carrots, Parsnips, Beets and Salsify.—If not enough of these have been sown, it is not too late to sow them now.

Onions.—Weed these occasionally. Keep the soil loose about the bulbs, but do not cover them.

Okra.—Thin out to 8 inches in the rows and cultivate it like corn.

Late Roasting Ears.—Plant a few rows of evergreen or mammoth sugar corn for late roasting ears.

Tomatoes and Egg Plants.—Transplant these, if not done before, as soon as you can this month. Try some of the tomatoes on trellises, or bush them.

Peppers.—Set these out, and never let them suffer for work or water.

Endives.—Sow seeds of endive.

Lima and other Pole Beans.—Train them up as they grow. Keep the ground stirred and draw fresh earth about the hills at each working.

Set out Cabbage Plants.—It is best to set out cabbage plants during a rainy or damp spell, but if they are getting over grown in the beds, water them in the beds, draw them out late in the evening. After planting, give them a good watering. It is better if a few plants are to be set out to take them up singly with a scoop trowel and with some earth attached. Thus removed and some pains taken, the growth of the plant will not be checked by the transplanting. When many plants are to be set out, they should be drawn or lifted with care, so that they retain as much earth as possible and as fast as they are drawn they should be put in a bucket or other vessel, containing a mixture of mould, soot and sulphur diluted to the consistence of cream—or in lieu of this mixture, use fresh cow manure. The roots kept in either of these mixtures until planted, retain their freshness and start much better than if no such precaution had been taken.

ORCHARDS.

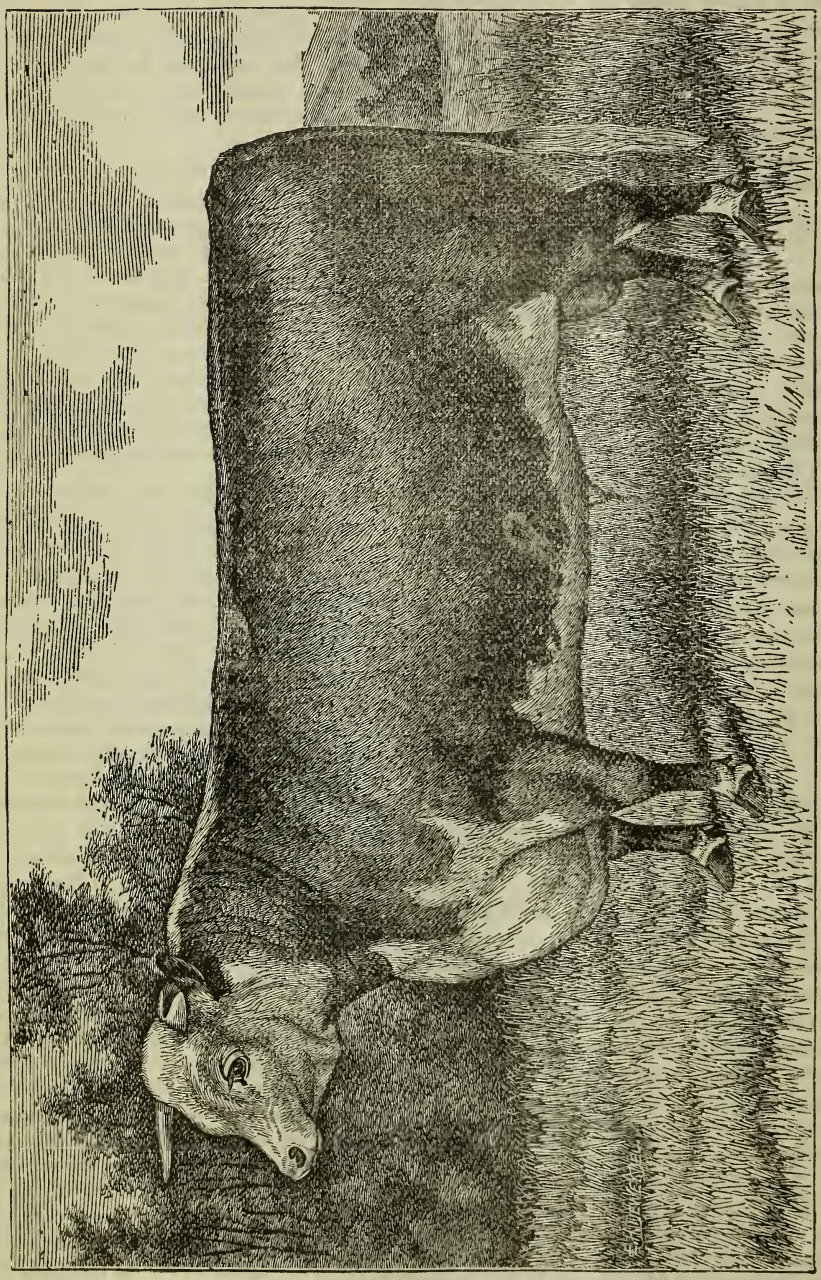
Look well to the orchards and wash the trees with a mixture composed of 1 quart of ashes, 1 quart soft-soap, 1 pint of salt, 1 pint of unslaked lime, the whole reduced by water to the consistency of thick white-wash; apply to the bodies and larger limbs with a white-wash brush. Examine the peach trees, and remove the earth about the roots, and destroy the large white worms and other insects that will be found, by using a dull knife or a wooden spatula. Sprinkle slaked lime or wood ashes and return the earth that was scraped away.

THE APPLE TREE BORER.

A very easy way to prevent injury by this pest of the orchard is to improve the first warm day after the 15th of May to scrape the trunk of the tree from a few inches below the surface of the ground to a foot or more above, removing all of the rough portions of the bark, and killing all borers that previous neglect may have permitted to find lodgment; the trunk of the tree should then be protected with a mound made of coarse sand or fine gravel reaching above the surface of the ground from six to twelve inches, according to the size and condition of the tree. It should be high enough to cover all scars and wounds made by borers, and small enough to keep dry several inches on the top. It is very rare that a miller will lay eggs on a smooth surface and in contact with dry earth; if they do it is still more rare for them to hatch. The mound of earth should be permitted to remain until the first of September, when it should be taken away and the trees examined, to remove any borers that may have been overlooked in the Spring, and to scrape off any new ones if any may chance to have hatched; but if the work has been properly done, ninety-nine trees out of every hundred will have escaped the enemy. Many writers recommend wood ashes, but repeated trials have proved that a hundred borers find lodgment in trees protected with ashes, where one will in trees protected with gravel. The cost is so trifling that every one can afford to try it.—*Ploughman.*

Chew Jackson's Best Sweet Navy Tobacco.

LIVE STOCK REGISTER.



Hereford Bull, "SEVENTY SIX," Owned by T. L. Miller.

Hereford Bull, "Seventy-Six," Owned by Mr. T. L. Miller.

We present our readers with a cut of the Hereford Bull, "Seventy-Six," owned by T. L. Miller, of Beecher, Ills., and bred by our friend, the Hon. John Merryman.

"Seventy-Six," is used in Mr. Miller's herd—on heifers the get of his imported bull, "Success." The get of this young bull from these heifers is all that could be desired; and Mr. Miller was so well pleased with the blood that he has purchased his sire, Sir Richard 2d. This bull was imported by Mr. Merryman, and used by him in his herd which is now quite large, is largely from this bull.

Mr. Merryman has been a breeder of Hereford for several years, finding a fair market for his stock, and has a herd of cows that cannot be excelled for the dairy or beef; and with the growing reputation of the Hereford and consequent advance in the values, he is likely to reap a rich harvest in the future.

Hereford Cattle.

Though the Hereford breed of cattle has not as yet been exclusively introduced into this section of the country, its excellencies are commanding the situation at many other points, notably in England, Australia, South America and in our own western country. It is a matter of record that not only in the London market have they been quoted from one to two cents a pound above the Short-horns, but the records of the Smithfield show will witness that the Hereford steer has a record over the Short-horn, and the same record shows that the Hereford steer has made as good weights as the Short-horns, at any given age. And now the Bath and West of England Society has awarded the two champion prizes, for best male and female in the show, to the Herefords. Coupling this with the fact that during the same record he has always brought better price, and another established fact that he has always been a more or less economical feeder and grazer, is it not strange that the press and agricultural societies have not been more ready to encourage them?

A recent sale of 100 Hereford bulls in England for shipment to the grazing regions of Buenos Ayres, shows the estimation in which this famous stock is there held. The Herefords have made more rapid progress in public favor at the West in the last five years, than ever was made by any other breed of cattle in America in the same time. In Colorado and Wyoming there are several herds of from 20,000 to 60,000 head, that are using all the Hereford bulls they can get; and already at the Union Stock Yards at Chicago, and at the St. Louis and Kansas City Stock Yards, these steers are commanding the top prices, while five years ago they were not known in these yards. In five years more they will be quoted at all of these markets, as they have been in the London market in England for the last 100 years or thereabouts.

The Hereford cattle are tough, hardy and thrive on a diet both in quality and quantity that would be unprofitable in the Short-horns. The cattle are very large sized, make excellent beef, are fair milkers, especially when crossed with other kinds, and are withal quite handsome being red bodied with white markings and a white face, the latter being an invariable mark of the kind. Among the herds of cattle, exhibited at the New England Fair at Worcester, Sept., 1878, none attracted more attention than the herd of Herefords owned by J. S. Hawes, of South Vassalboro, Me. He showed thirteen Herefords, among which was a thoroughbred bull, "Highland Chief," the largest on the grounds, having a length of eleven and a girth of nine feet, one bull and two heifers, also three calves, five months old, which he engaged to parties who design sending them to a ranche in the West, where they are breeding stock to ship to England. The price stipulated was $300 for the trio. The Hereford cows, on exhibition weighed between 1,500 and 1,600 pounds. An enlarged popularity in this country is predicted for the Hereford breed of cattle.—*American Cultivator.*

[We saw at that fair Mr. Hawe's bull, "Highland Chief," and admired him greatly. His color was rich and peculiar, being dappled like a horse—and in the sun glittered as if his sides were spotted with gold dollars. The trio of calves were very superior.—EDS. MD. FAR.]

Feeding Large or Small Animals.

Abundant experience, says an exchange, if such proof were necessary, shows that there is more profit in feeding the larger breeds than there is with the smaller breed of animals, whether for milk or meat. Of course there are exceptions to this, as in all general rules; the small Jersey cow for example, which is expected to produce an exceptional product of high-colored and finely flavored butter; but this does not affect the rule above stated. It is only necessary to consider that, when we feed two animals of 700 pounds each, we have to supply the demands of two sets of breathing, circulating and muscular apparatus, which are considerably more extensive and expensive than those of one animal of 1,400 pounds.—*Exchange.*

For the Maryland Farmer.

SHEEP HUSBANDRY.

The person who is proposing to enter upon sheep husbandry should not undertake it upon the supposition that he is to be able to repose in the "flowery beds of ease," for he will soon discover his error. It should be understood that profit comes from excellence, and "there is no excellence without great labor." By nature the sheep is differently constituted from other farm animals. It is more timid and requires very gentle treatment. By gentle treatment, confidence is gained and the sheep will readily follow the owner; but let the sheep be seriously frightened, either by dogs or otherwise, it takes a long time to overcome the fear, if it is ever overcome, which is sometimes never the case; therefore, the first and chief requisite is kindness which insures confidence. With the present disposition of so many to rush out of this branch of farm industry, it is very probable that for some time in the future, as it has been in the past, it will be the best business in farming, because the supply of wool must be met.

John L. Hayes, Secretary of the National Wool Growers Association, says: "Of all the beneficial arrangements of Providence, there is hardly one, more conspicuous than that which has placed at the disposal of man, an animal capable at the same time of producing a most desirable food, of benefiting agriculture and of supplying one of the first necessities of man—that of clothing. These three qualities are eminently possessed by the sheep." One of the objects of sheep husbandry is the production of wool, and this is of different qualities as is shown in the different breeds. Some of the remarkable qualities of wool are its specific gravity, it being the lightest of any fibre that is used for purposes of clothing; this quality enables the wearing of warm garments without suffering. Another quality is its polish, another its capacity to receive dyes. But perhaps the most important quality is its fibre. The mention of some of the principal breeds of sheep must necessarily be brief. The Lincolnshire produces a great bulk of wool of great length and lustre, but little grows upon the bellies. The lustre is almost like mohair. An instance is reported of a flogged fleece—one from a lamb that was never shorn, that weighed twenty pounds, and whose fibre was eighteen inches long, which would when diluted with a proper amount of cotton be sufficient to make 672 yards of alpaca.

The Cotswold is a long wool sheep, and is a hardy animal, having a heavy carcass. which is believed by some to render the animals more quiet, and better adapted to poorly fenced farms. They are well adapted to exposed situations and scanty pastures, and do not fatten as early as the Leicesters. The Leicesters are among the oldest races of sheep; they have a white face, no horns, and furnish a bountiful fleece, weighing from 8 to 12 pounds and being from 10 to 15 inches long. The Downs are a smaller bodied sheep, weighing from 65 to 80 pounds, and producing from 3 to 5 pounds of wool, of medium quality, termed middle wool and suitable for combing. They produce the best mutton and are the healthiest and hardiest of our sheep; they have a dark face without horns. Mr. Eastburn Reeder, of Penn., a sheep breeder of experience and success, states "that the Southdowns are the best suited to his particular locality." He also gives the profits accruing to him from 12 ewes from 1870 to 1877, a period of seven years. From sheep and lambs sold, an average of $170 per year, from wool sold an average of $32.24, making a total of $202.24 per year. In addition to this the premiums received amounted to an average of $100 per year, which would make the above amount $302,24, or an average of $25.18 per ewe per year for the twelve.

There are races of sheep in the Scottish Highlands which, though small, when fattened are highly esteemed for mutton. They earn their living through the year.

The merino is said be a relic of Roman civilization, and is a great boon to wool manufactures. The wool is extremely fine and therefore makes the most desirable cloth. Fine French merino dress goods are made from merino wool.

Different sections of country, from natural conditions, from the market demand, or some other cause, will be best adapted to different beeds of sheep, and hence no special rule for selection can be given. In sheep husbandry some special object must be kept in view, either the production of wool, mutton or both, and this will aid in selection. With the average farmer it would not be desirable to attempt the keeping of too many, and as small number can be kept on an average farm with very little addition of feed above all that it is believed to be required to a full amount of stock, because as before stated, the sheep will live upon that which other animals will not eat, and by keeping the pasture cleared of noxious plants, give an opportunity for the growth of an increased quantity of grass. The previous article referred to the fertilization of land; an illustration may not be out of place here. A farm of 380 acres was purchased that would produce annually only 17 loads of hay, rye 10 bushels per acre, corn 20 bushels per acre, and pasture 2 horses, 2 pairs oxen and one cow;

by means of sheep at the end of 26 years, the farm would produce 800 loads of hay, corn 50 bushels per acre, wheat 15 bushels per acre, besides oats, roots, and pasturage for 300 sheep, and the teams cows, &c., necessary to carry on the farm. Another instance was the raising of the productive capacity of a farm from 10 bushels of wheat per acre to that of 24. The matter of general management and winter care of sheep will appear in a future number and conclude a subject which has already become too lengthy. WILLIAM A. YEOMANS.

For the Maryland Farmer.

General Purpose Horses.

BY D. Z. EVANS, JR.

We know of nothing which affords greater pleasure to man, as a rule, than the possession and ownership of a good horse, and we are always at a loss to know how any one can be be so cruel as to beat and otherwise ill treat one of the best and noblest creatures that nature has given into our keeping. There are many of our farmers who, after reading the high prices obtained by prominent breeders, for a few choice, fast animals, become suddenly infatuated with the idea of breeding trotters. They take the best mare or mares that they have in their possession—generally a very good farm animal, or possibly a creditable roadster, hunt around for the most likely stallion in their immediate vicinity (the one having the longest and most flashy pedigree being the one chosen) and then breed to him. Very little, if any, care is taken to have the owner of the stallion prove, beyond the shadow of a doubt, that his horse has a right to the pedigree given to him, all being taken without question as true. Time rolls along, and the colt comes safely into the world and in due time, reaches the commencement of its fourth year. The farmer feels confident he has an embryo, spends all of his time and spare cash in training and handling the youngling, only to find out that the colt is just about fast enough to lose almost any race he may be entered in at the regular track races. The infatuation does not subside, but often continues until by neglect, the farm runs down and the farmer becomes considerably involved in debt. It takes considerable knowledge, as well as a well-filled purse to make breeding fast horses pay a fair profit. Many a farmer, by trying to produce trotters, finds himself with a lot of really worthless horse stock on his hands—no good as trotters, and too small and nervous to be used for any farm purposes. There is far more profit, to the average farmer, in breeding heavy draught horses, which will readily command in the larger cities, from $150 to $300, at 3½ to 4 years old, than in *trying* to breed track horses. There is a kind of horse which is always in demand, in city and country, and the demand is so much ahead of the supply, the prices are invariably satisfactory. The general driving and business public want a horse which has a good, well rounded form, good spirit and endurance, and is of good size, able to draw a carriage load of persons over an ordinary road at about the rate of ten miles an hour, and which can be used as a business horse or for farm purposes. We have been long on the look out for just such a horse, and we found him some time ago. The Patchen breed of horses fills these requirements to a nicety, and has the still further desirable feature of having many really fast trotters duly credited to them. From choice mares you are likely to have a trotter, and if you do not chance to get one which will do to go in fast company, you have a good, serviceable and salable horse, which is quite a feature at any time. There are hundreds of slim, nervous, rakish looking horses, many of which can be bought for far less than it cost to breed them, but buyers do not want that kind of stock at any price. While some farmers scout the pedigree, they always like to breed to the best they can. Pedigree merely goes to *prove* that the animal's claims to superiority and high breeding are well founded, and that is why we are so careful to ascertain the truth of any animal's breeding before making use of him as a sire.

Profit in Sheep.

The *Massachusetts Ploughman* has the following comparison of raising lambs and feeding sheep for market. The prices are much higher for stock sheep and for feed in New England than out West, but the figures will do to think over and work out our own problems by.

The profits of sheep husbandry may accrue in various ways. We will only mention two: raising early lambs and feeding for mutton, either of which is profitable to about the same extent of the other, amounting to nearly fifty per cent. in profit on the capital invested. The course of management in both these may be somewhat varied, but about the same percentage of profit can be made. For instance:

RAISING EARLY LAMBS FOR MARKET.

Fifty good graded ewes, at $4	$200 00	
One good ram, $ 5	25 00	$225 00
Pasturing, salting, washing shearing, etc, at 80c.		40 00
Winter feed for ewes, hay, meal, and roots, $2.50.		125 00
Winter feed for lambs, at $2		100 00
Total		$490 00

RETURNS.

Fifty good ewes will certainly have 60 lambs, of which are—	
Forty lambs, 3 to 4 months, at $6	$240 00
Twenty lambs, later and inferior, at $4	80 00
Two hundred lbs. wool from ewes, at 30c	60 00
Five cords of manure, worth per cord $5	25 00
Total	$405 00
Deduct cost of keeping and feeding	265 00
Total	$140 00
Deduct deterioration of flock 15 per cent.	33 00
And we have, besides our own flock, net profit	$107 00

—almost 50 per cent., beside the entire flock and the improvement of pastures over stocking with cows or other neat cattle.

We make no account of interest or taxes, as those would be the same whether the farm were stocked with sheep or with cattle.

This calculation supposes lambs to be dropped early, either in the last of January or February, in a warm place, and to be fed with some grain or meal the last two months before being sold. Another way is to have the lambs dropped later and going with their dams to pasture, to be sold in July or August for from $3.50 to $5. You don't get so much for your lambs, but you save the hay and meal and some anxious care in the lambing season.

FATTENING SHEEP.

Another profitable way of treating sheep is to draft the older ewes, the barren or dry ones, or yearling lambs, or to buy from Canada or the West wethers or nonbearing sheep in good condition in the fall or early winter, and feed them till fat enough to turn in about four months.

Fifty wethers, ewes or yearlings, weighing say 100 lbs. each, at $3	$150 00
Six tons hay, at $20 per ton	120 00
One hundred bushels corn, at 75c	75 00
Total	$345 00

RETURNS.

Fifty sheep, weighing 125 lbs., at 6c per lb	$375 00

—showing beside the manure, worth $25, a net profit of $30, after selling them, your hay and corn at an exorbitant price. Another way of showing more profit in figures would be to call your hay at $10 and your corn at 50c, about what it costs you to raise six tons of one and one hundred bushels of the other, $110, added to the cost of the sheep, $150 is $260, substracted from the amount received, would show $115 profit on the sheep. Not much different from raising lambs.

TO SAVE CHILLED LAMBS.—Mr. D. C. Smith, of Oldham, informs the *Era* that he saves chilled chilled lambs by putting them in a tub of warm water until circulation is restored. They are then wiped dry, given a little milk, and taken to the mother.

History of the Maryland Agricultural and Mechanical Society.

CHAPTER X.

On the 26th, 27th, 28th and 29th of October, 1852, the Society held its Fifth Annual Fair on its own grounds, near Charles street, and just outside the city limits. The grounds had been improved and the arrangements generally, perfected.

This exhibition was a grand one, and in every department showed wonderful advancement, and how much this Association had done towards the progress of all the various branches of agriculture, in the State. The large attendance of visitors from every part of the State and other States, manifested the growing interest of all classes in the objects which the Society had undertaken to encourage and foster.

At this meeting, the number of exhibitors was very large and a great increase over former years. The entries in cattle alone were over 460. The entries in all other departments of stock and poultry were in like proportion. The Household manufactures were in great variety and quantity. The show of vegetables was, perhaps, the largest and best ever made in this country—Col. Oden Bowie, of Prince George's County, Md., alone exhibited 80 varieties, among which was celery 4 feet, 10 inches long, a squash weighing 75 lbs., potatoes over 1 lb. each, turnips weighing 6 lbs. each, &c The Household Hall was the great feature of attraction, crowded as it was with the ingenious handiwork of the ladies, with a wealth of all the good things in cookery, preserving and other matters that were creditable to the splendid house-keeping accomplishments of the fair women of Maryland, who added their personal presence to brighten and add to the beauty of the scene.

The display of agricultural machinery was all that could be desired and far above expectation. Messrs. E Whitman, R. Sinclair, George Page and Obed Hussey, of Baltimore, were the largest contributors, but there were a host of others who materially added to the variety of articles exhibited and to the grand make up of this important portion of such exhibitions.

During an evening session the following report was submitted, and what was then advised is applicable with even greater force to the present day. Dr. Humphrey, who prepared it, was then President of St. John's College, Md., and a very learned man, as well as an excellent analytical chemist. It was of such men that this old Association was composed—Divines, Lawyers, Doc-

tors, Scientists, intelligent, highly educated, practical Farmers, who met together for social intercourse and both to learn and instruct.

It is sad to think, they have nearly all gone from us, we trust to that happiness they richly merited, and their places not filled by men of like stamp and zeal in the development of agriculture.

"REPORT ON AGRICULTURAL EDUCATION.

To the State Agricultural Society of Maryland:

The Committee on Agricultural Education respectfully report:

It is now 17 years since Maryland commenced a *Geological Survey.* A series of reports have been made by respectable Chemists during this period, detailing the examinations which they had made in various portions of the State. It is not to be doubted that considerable benefit has accrued from this expenditure. Nor is it designed to recommend a discontinuahce of such methods of improving our soils. It seems evident to the Committee, however, that this kind of service is not directed to the *proper point* to diffuse the most general and practical knowledge of scientific agriculture; inasmuch as the modes of analysis are pretty much limited to the few professional gentlemen who follow this business, and who are likely to find it very profitable, so long as the present system only prevails. It is believed that a complete knowledge of the soils of the State will not be acquired by such means alone till after the close of the present century. A more direct and effectual plan would be to introduce Agricultural Chemistry into *the Schools;* and to prepare plain and convenient *manuals* of its principles, so that every intelligent farmer shall be able to make analyses of the varieties of the soil found on his own estate. It is a mistake to suppose that any vast amount of learning is required to do this. The Committee are not speaking of *mines* and *minerals*, but of *soils* and *manures.* For full and satisfactory examination of these, farmers must look to their own resources, before any *very general* and *thorough* survey of the counties will be accomplished. It is rather costly to pay $5 for a qualitative analysis and $20 for a quantitative analysis of a single specimen; and the outlay, after all, is of little avail, when but one sample is taken from a field of 40 or 50 acres. Any enterprising farmer, at a moderate expense, can make these examinations, with sufficient exactness, in regard to the *actual deficiencies* of his soil, and the *noxious substances* present. With a few simple articles of apparatus, he may hold under treatment a *dozen* samples at the same time from any one of his fields, and with no very large demand upon his time. Results thus multiplied will rapidly extend the benefits of Chemical Agriculture. With this view, the Committee recommend that a *premium* be awarded next year for the best Essay, to be written for this express purpose, to enable our citizens to apply the proper tests, and to use the necessary re-agents, to determine the constituents of soil.

The public attention should also be more earnestly directed to *Agricultural Education.* Provision should be made, at the State's expense, in at least one college, for instruction in *Agricultural Chemistry*, where teachers and others can be properly prepared to spread this information in all the subordinate schools. St. John's College, at Annapolis, is well situated for such a *professorship* to be established there, since the public men are on the spot during the winter months, and can look after its progress, and avail themselves of its advantages.—It is not probable that more than one professorship of this kind would be publicly endowed; and there are several additional reasons which indicate this as the best location. The *laboratory* of St. John's has been used by the State Chemist, Dr. Higgins, during one season, and pronounced by him to be of the first order, for its completeness and convenience. —Indeed, at no other place could a *permanent* laboratory for the State produce so much benefit to the farming interest, as at Annapolis, where the representatives of all parts of Maryland meet and reside for a considerable portion of the year. The opportunity of attending lectures and witnessing analysis, and of inspecting a well-arranged cabinet of soils, could not be neglected. This plan has been adopted in the New England States, and their chief colleges have laboratories in which the regular students can acquire art, while they are pursuing their literary course; and others also can obtain it whose means and opportunities require them to limit their studies to this branch alone. A recommendation this object by the State Agricultural Society to the Legislature, would undoubtedly receive the approbation of the people. Should the measure be adopted, it will give an impetus to Agricultural Education that is not likely to be derived from any other quarter. The Committee therefore propose that a *memorial* be addressed to the General Assembly next winter, at Annapolis, to procure the endowment of a Professor of Agricultural Chemistry in St. John's College.

Another consideration indicates this as the best institution for such services; which is, that the *United States Standard Balances and Measures*, have been permanently mounted there, by order of the Legislature, affording the most accurate means of *verifying* the instruments which must be employed whether by students or others in the prosecution of such labors, under the superintendence of the professor.

An *extensive cabinet* of minerals and soils, domestic and foreign, has already been collected and arranged there, which could, by such means, be speedily and very greatly enlarged, and would induce intelligent farmers to visit the institution to inspect the varieties of soil already analysed.

The Committee are no advocates for *royal roads* to science There can be no *cheap process* that shall supersede the pains-taking methods of college discipline. They believe, nevertheless, that an *elementary and easy book of practice*, for the people, is yet a *desiderutum* in this branch of public economy. The great masses of our lands, on both shores, in the lower counties, are peculiar in their formation, and call for a system adapted specialty to the subject. At the same time, the upper counties contain, in common with several of our sister States, the richest deposits of *minerals*, which should receive a similar *local* discussion in the proposed Essay. The geological surveys,

surely, by this time, have furnished abundant *materials* for such a work; and, moveover, there is sufficient ability among us to procure it. Professor Ducatel did not pursue the subject long enough to *work up* the materials which he had collected, and the fruits of his labors were thus almost lost. It is probable, indeed, had he lived, that he would have elaborated a *final report*, somewhat of the character now devised by the Committee. In short, the object is to render a ready application of the process of chemistry available to the tillers of the soil in Maryland.

The Society may not be able to afford any *very high premium* for such a *text book of agriculture;* but the *distinction* which will mark the receiver of the prize, together with the consciousness of becoming the agent to sow, broadcast, the advantages of geological science, will be an ample reward for the true patriot.

Respectfully submitted,

HECTOR HUMPHREYS, Ch'n."

The Comversational meetings during the evenings of this remarkable meeting were of a decidedly interesting and instructive character. They have been luckily well reported and published in the *American Farmer*, vol. 8, pages 197, &c. These conversations,—rather questions and answers, were upon Wheat Culture, Prices and Price Currents, Hessian Fly, Joint Worm, which, at that day, seemed to be a *new* enemy; dairy Business; Cattle Feeding, and Grazing and Prices of Beef Cattle, &c. More was gained in knowledge in one evening through such discussion than is now arrived at by a dozen Exhibitions of Agricultural Societies as at present conducted. Each evening the large room was well filled by eager, orderly and deeply interested farmers and planters, who meant business. Those meetings were really intellectual feasts, and the reminescences of them were long treasured by those who participated in them and years afterwards were remembered with pleasure as the holiday reunions of agriculturists.

If the horse is shy and hard to catch, take finely grated horse-castor, oils of rhodium and cummin; keep them in seperate bottles, well corked; put some oil of cummin on your hand and approach the horse on the windy side. He will then move toward you. As soon as you can reach him rub some of the cummin on his nose, give him a little of the castor on anything he likes, and get a few drops of the oil of rhodium on his tongue. After this you can make him do nearly anything you want. Treat him kindly, feed well, handle gently, and your victory is certain.

Working oxen are often more useful than horses, and of late have been too much neglected. It should not be forgotten that oxen require more time to feed than horses, and ample opportunity for rumination should be given. During winter, oxen that work upon the road ought to be shod. The cost will be saved in the extra work done, and freedom from injury by slipping.

Recipes For Fertilizers, &c.

Editors Maryland Farmer:—For several years I have heard considerable talk amongst our farmers of very cheap fertilizers that they were making themselves—some having bought "*receipts*" and then bought the ingredients and mixed them together, whilst others buy of certain houses in your city and elsewhere, a number of mysterious packages which they mix together after their arrival at the barn. Now there are some things about these wonderful fertilizers, which are made at a cost of from $12 to $20, and recommended as being as good as the more costly articles sold by regular manufacturers, that I do not quite comprehend. Perhaps you can enlighten me. Some of the formulas contain 200 pounds of bone to the ton of mixed fertilizers, and the balance is made up of very *ridiculously minute quantities* of articles that have some merit and cost accordingly, such as nitrate of soda and sulphate of ammonia, and very *large proportions* of the cheapest materials that are ever applied to land as fertilizer, such as sulphate of soda, plaster, salt, &c., and this weak mixture is then additionally lessened as to cost by adding wood ashes or rich earth. Now, *Messrs. Editors*, if as good a fertilizer can be made in this way at a cost of say $15 as that which I am using at a cost of $35 to $50. (I use raw bone, dissolved bone, guanape, or sometimes a high grade phosphate made in your city.) I want some of it; but I must confess that I have never yet been quite able to see how a bag of bone scattered over 10 acres could be as good as a bag of bone on one acre. Nor do I want to pay for plaster or take the trouble to mix it with other ingredients to drill it with my wheat, when I do not believe plaster drilled in with wheat is of any practical value. Plaster has its uses, but I have never discovered this to be one of them. Wood ashes I consider highly valuable, bnt they are costly and seldom to be obtained in sufficient quantity. To be sure the farmers *usually neglect* to say that they put two or three times as much of these mixtures on as they do of the regular high priced phosphates—but that is a small matter of no consequence. Now you people in the city are constantly doing such wonderful things that I am ready to believe anything, and I suppose the vendors of these magical fertilizer ingredients must put a charm upon them. If so, do they allow the performance to be seen? I remember of seeing the play of Macbeth many years ago, and the witch scene made a very strong impression upon me. Is the charm worked upon these fertilizers in something the same way? I

would like to see the march around the cauldron and listen to the incantations. I went to Baltimore nearly a year ago to examine into the mysteries of the telephone and would make another trip, if you can obtain admission for me to one of these *alchemical seances*. Possibly, however, the value of these cheap mixtures may not be obtained in this way, but if not, how is it done? I want to give up using expensive fertilizers and use cheap ones that are just as good—but I want to be sure I am right before I go ahead.

Yours truly, "KENT."

[We are unable to enlighten our esteemed subscriber, but hope that the inventors of these Formulas will answer. Any information from parties interested or from farmers who have tried these recipes will be gladly received by us for publication. It is an interesting subject for discussion. If the chief component of these home-made manures be *ashes*, there is no question as to their efficacy, but the query is what farmer has a supply on hand, and if not, what would they cost? And if ashes be used in sufficient quantity, what would be the use of the other ingredients which compose these mystical compounds?

One of these formulas, to which "Kent" alludes, being put in our possession, we submitted it to Dr. Wilson, along with the letter of "Kent" for his views in regard to the value of these cheap home-made manures, he having a wide reputation as an analytical chemist, and we append his reply, hereto.—Eds. MD. FARMER.]

Editors Maryland Farmer:

In answer to the inquries of your correspondent "Kent" in regard to the value of the chemical preparations, and alkaline salts, to which the attention of the farmers has been called during the last few years—for the purpose of composting on their farms, can scarcely be placed in rivalry with the regularly prepared chemical fertilizers or superphosphates, as known and understood by manufacturers and consumers.

If the formula you hand me for tobacco is a fair exponent of the composition of one, viz:

15 lbs. Sulphate of Ammonia,
20 lbs. Nitrate of Soda,
100 lbs. Sulphate of Magnesia,
100 lbs. Potash,
200 lbs. Dissolved Bone,

with sufficient muck to make one ton, would contain in one ton a fraction less than one-quarter per cent. of ammonia.

The nitrate of soda, *if pure*, would contain 12.7 lbs. nitric acid, which, if reduced to a nitrogen value, equal to ammonia of 4 lbs. or one-fifth one per cent., in all, less than one-half per cent. of ammonia, if the nitric acid and ammonia values can be compared, *en parenthesis*, I would state that I have occasionally seen samples of nitrate of soda very much adulterated, containing sometimes more than fifty per cent. of common salt—when the article imported from Chili contains from ninety-six to ninety-eight per cent. of pure nitrate.

The term potash in the formula is vague, it cannot be the alkalic, but one of its salts. Either the muriate or sulphate, 100 lbs. of the former contains in round numbers 50 lbs of potash, while the latter usually 12 to 14 lbs. The dissolved bone is too greatly attenuated to produce beneficial results on any crop, to produce a certain amount of force, an equivalent amount of matter must be transposed, whether it be to exert mechanical. animal, or vegetable force, hence, a deficency of that force, whether it be fuel for the engine, or food for the animal or plant, will result of loss of power in the former, or vitality in the latter.

You state further that the above formula, with the designated quantities, are sold to the farmers at $13, and desire to know their agricultural value, the prices placed upon the constituents in first-class fertilizers, by the Georgia Agricultural Commissioners, seems to be accepted both by farmers and manufacturers as a fair one, would give for this formula its actual farming value as follows: 4.86 lbs, of ammonia in the sulphate of ammonia, at 18 cents per lb, 87½ cents, basing the nitrogen value as compared with ammonia in the nitrate of soda, at 4 lbs, of ammonia, at 18 cents per lb., would be 72 cents; the sulphate of magnesia, at 1 cent per lb. or $1.00 for the 100 lbs; 100 lbs. kainit, containing, say, 14 per cent. of actual potash, at 8 cents per lb, equal $1.12, while the dissolved bone containing, say, and equivalent to 28 per cent of dissolved bone; phosphate of lime would have 25.7 lbs. of phosphoric acid, at 12½ cents per lb. or $3.21; total farming value of $6.92½—if, however, for kainit, the muriate of potash is substituted, which contain 50 per cent. of potash, the value would be increased to $9.81.

The percentage of plant food in a ton of fertilizer prepared by this formula is very small when compared with the fertilizers manufactured in this city. A ton prepared by the formula submitted, has about one-fifth of the ammonia, one-third of potash, and one-sixth of the super-phosphate of the standard chemical manures.

Respectfully, &c.,

P. B. WILSON,

Analytical and Consulting Chemist,

No. 30 Second Street.

For the Maryland Farmer.

The Harford County Sugar Beet Association.

On Saturday, 19th of April, at the residence of R. B. McCoy, Esq., the Harford County Sugar Beet Association met, Mr. C. C. Kensey in the chair, and W. Scott Whiteford, secretary. On motion of John R. Day, R. B. McCoy was elected president; C. C. Kensey, vice-president, and W. Scott Whiteford, secretary. Present, John R. Day, Wm. R. Galbreath, David G. McCoy, jr., H. F. Whiteford, P. F. Bell, P. J. Scarborough, Robert Love, James C. Bell, R. H. Morgan, Wm. G. McCoy, George W. Jones and Curtis Kinsey.

After a full and free interchange of views, and the adoption of the following resolutions offered by Mr. James C. Bell, the association adjourned, to meet at the same place, May 2d, at seven o'clock P. M.

Resolved, That in view of the prospect of a profitable future for the cultivation of the sugar beet, that all of us here gathered should cultivate, this season, some amount of the same, and in doing so keep a careful account of the time and mode of planting, the mode of cultivation, the time of harvesting, and the results, for report and comparison at a future meeting of the Harford County Sugar Beet Association. It is further

Resolved, That we recommend our friends and neighbors to do the same, as at the worst the crop will be well worth its cost as food for stock.

R. B. McCOY, Pres't.

W. SCOTT WHITEFORD, Sec.

The Sugar Beet Association met according to adjournment, at McCoy's, May 2d, at 7 o'clock P. M., R. B. McCoy, president; C. C. Kensey, vice-president; W. Scott Whiteford, secretary. Most of the members present. The following new names were added as members: C. C. Galbreath, Samuel J. Whiteford, Thomas Clement and Hiram Klair. The proceedings of last meeting were read and approved. The secretary at the last meeting was instructed to correspond with a number of parties, and answers to his letters were read: A letter from the managing director of the Delaware Beet Sugar Company, Lee Pusey, Esq., stating they had the stock subscribed for their factory; contracts made for growing the beets the present season, and would pay $4 per ton for beets at any station on the P. W. & R. R. The beets to contain 10 per cent. of sugar. Also a communication from Andrew H. Ward, of Bridgeport, Mass., stating he had made sugar from beets in the common sorghum pan for a number of years, and proposed to continue the same, and sold his raw sugar to the Boston refineries, Other reports as to the manner of raising beets were read. After a general discussion of the question the meeting adjourned, to meet at the call of the president.

W. SCOTT WHITEFORD, Sec.

[Thanks to Secretary Whiteford for his reports, and hope that he will continue to report the proceedings of each meeting of the Harford S. B. A. —the first formed in our State. We sincerely wish it the greatest success, and that by autumn they will have a sugar beet factory, *if not a refinery*.]

Cost of Fences.

The cash value of the annual farm product of the United States is, according to the reports of agricultural bureau. over $2,450,000,000; while the value of all the live stock in the country, including horses, mules, cattle, sheep and hogs is but $1,629,211,933, or $800,000 less than the annual value of the crops.

To protect this $2,450,000,000 worth of growing crops from being destroyed by the $1,628,111,933 worth of live stock, 1,619,116,428 rods of fence are required to inclose the ground or the 250,505,614 acres on which these crops are grown—being an average of 6.46 rods per acre, costing $1.08 per rod or $6.98 per acre to fence it—making the total cost of the fencing $1,743,616,184, or about $89,317,195 above the value of all the live stock. The annual decay and cost of repairs cannot be less than 10 per cent. of the original cost, or $174,753,916, whidh at seven per cent. interest, ($124,316,811,) would make the total annual cost $299,172,729.

But this is not all. A fence occupies and wastes an average of half a rod wide, or one acre for every fifty enclosed—making a total for the land occupied by fences of 50,101,123 acres. The gross proceeds per acre of the cultivated land in the United States is estimated at $9.78. Call it $9 per acre, and, taking two-thirds as the cost of cultivation, we have $3 left as the net proceeds per acre, which shows an annual loss of $150,304,368. So that the cost of making and keeping in repair the fences of the country is considerably more than all the live stock of the country is worth; and this, too, to give free range to stock running at large whose owners need not own or pay taxes on a foot of the land. But farmers beginning to find out that when they own the land and pay taxes on it they should at least be allowed to own the crops grown there on and be protected in their rights to do with them as they please, provided, in doing so, they do not interfere with the rights of others. —Ex.

OUR OLIO FOR OUR READERS.

Startling Figures—Where the Money Goes.

The Key to Poverty and Hard Times.

BY DAN'L DENNETT.

If a mechanic takes just two drinks of whisky daily, no more and no less, for 365 days, and pays 15 cents a drink, he spends for for these 730 drinks		$109 50
This might pay for—		
3 barrels of pork at $10,	$30 00	
4 barrels of flour at $7,	28 00	
1 barrel of sugar at $16,	16 00	
1 barrel of molasses at $12,	12 00	
50 pounds of coffee at 20 cents,	10 00	
5 pounds of tea at $1,	5 00	
100 yards of calico at 7½ cents,	7 50	
Thread and needles to work it up,	1 00	
		$109 50
A clerk in a store who only takes two drinks a day and smokes three dime cigars, in these little luxuries uses up yearly $218 50, in ten years,		$2185 00
Interest, 10 per cent. on each year's expenses to the end of ten years,		983 25
		$3168 25
A young farmer who loses 30 cents a day in drinks and lost time for ten years, loses enough to purchase a farm of 100 acres,		$1000 00
Also to pay for 3 fine cows at $100,		300 00
50 sheep at $3,		150 00
3 Berkshire hogs at $20,		60 00
2 mules $122,		250 00
A fine stock of chickens, duck, turkeys, geese, etc.,		50 00
Wagon, plows, farming utensils, a buggy and harness,		300 00
Cash in bank,		1058 25
		$3168 25

To sum it all up, and present the matter in true colors and plain English, the farmer whose drinks cost him, in cash and its equivalent, time and sacrifices, 30 cents a day, in ten years swallows a hundred acre farm and its houses and fences, 3 fine milch cows, 50 sheep, 3 hogs, 2 mules, a flock of domestic fowls, a wagon, buggy and farming utensils, aud $1058 25 in cash.

* * * * * *

Lousiana has now not over a hundred thousand producers to seven hundred thousand consumers who do not engage in productive industries. And too many of the 100,000 field laborers and farmers in the State are more or less demoralized by whisky. Many wonder why times are so hard, and money so scarce. The greater wonder is why times are not harder, and money scarcer. All of this proves that this is a wonderful State, a wonderful mother, that can can support so many children under such a cloud of disadvantages. With so many leaks in the ship of state, it is wonderful she still floats.

What is said of Lousiana may unfortunately be said of other States.

Keep Borax in the House.

Having long used borax for various domestic and hygenic purposes, I have come to regard it as a necessity. Housekeepers who do not use it have something yet to learn concerning a very convenient and useful article. In the laundry it is economical, as it saves both labor and soap, and is really cheaper than the latter. For blankets and other large articles it is especially valuable, and in all cases the use of a little borax will save half the labor when articles are much soiled. It is pefectly effectual in driving away red ants, cockroaches, etc., if sprinkled around on pantry shelves, or put in small quantities on paper and placed in the runways of the insects.

Borax is also of great value for toilet uses. For removing dandruff and cleansing the hair it is unequaled. It is also a good remedy for rough face and chapped hands. Its application to wounds, sores, bruises, sprains, etc., proves very salutary, and is often the only remedy required, even in severe cases. Indeed, borax is one of the best remedies for many ailments in our hygiene, and keep ready for use when wanted. There are many other uses for borax which I need not specify, but those I have mentioned are alone enough to satisfy any family of the value of the article, and to all such, as well as those who do not understand its properties, I repeat, keep borax in the house.—A HOUSEKEEPER, in *N. Y. Advocate.*

A box 24 by 16 inches, 22 deep, contains one barrel; a box 16 by 16½ inches, 8 deep, contains one bushel; a box 8½ by 8½ inches, 8 deep, contains one peck; a box 4 by 4 inches 4½ deep, contains a half peck. The standard bushel of the United States contains 2150.4 inches. Any box or measure, the contents of which are equal to 2150.4 cubic inches, will hold a bushel of grain. In measuring fruit, coal, and other substances, one-fifth must be added. In other words, a peck measure five times even full makes one bushel. The usual practice is to "heap" the measure.

HOW TO KEEP MEAT.—First, take a store goods box, bore some small holes in the bottom. When salt enough take up and smoke; when smoked enough, take the store goods box, put a layer of clean, dry salt in the bottom, then a layer of meat; do not let one piece touch another or the box; cover the layer of meat level over with salt, and so continue till you get your meat all in. Keep in smoke house or some dry place. We have kept ours this way for several years, and found it very good.

THE
MARYLAND FARMER,
A STANDARD MAGAZINE.
DEVOTED TO
Agriculture, Horticulture & Rural Economy.
EZRA WHITMAN,
Editor.
COL. W. W. W. BOWIE, Associate Editor.
141 West Pratt Street
BALTIMORE.

BALTIMORE, JUNE 1, 1879.

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These articles we warrant to be first-class.

TO ADVERTISERS

The large circulation of the Maryland Farmer makes it one of the best mediums for advertisers of all classes. Its circulation will be largely increased by our reduction in the Subscription Price, and hence add to its advantages as a medium for advertisers. The terms of advertising will remain as heretofore.

The Maryland Farmer will be read this year by more Farmers, Planters, Merchants, Mechanics and others interested in Agriculture, than any other magazine which circulates in the Middle or Southern States, and therefore is the best medium for advertisers who desire to extend their sales in this territory.

☞We call attention to our Reduction in Price of Subscription.

☞Read in the advertisements for this month our 13 Reasons Why every Farmer should Subscribe for, and every Business Man Advertise in the Maryland Farmer.

DR. KENDALL'S valuable little book on the horse and his diseases, can be had at our office or sent by mail on payment of 25 cents.

GRAPE GROWING, ON THE SINGLE POLE SYSTEM, OR HOW THEY ARE CULTIVATED ON THE UPPER RHINE VALLEY, by A. H Hofer. A treatise every grape grower should have. Price 50 cents, at our office or sent by mail postage paid.

☞Our friends can do us a good turn by mentioning the MARYLAND FARMER to their neighbors, and suggesting to them to subscribe for it.

YOUNG MEN!

It is an easy way to make money by getting subscribers for THE MARYLAND FARMER. Send 10 cents for Specimen Copies, and ascertain what Liberal Commissions we will allow.

TO OUR SUBSCRIBERS!

The reading matter in the Maryland Farmer will never be lessened by advertisements. We feel called upon to make this statement, as the large increasing circulation of our paper naturally *increases the amount of advertisements, therefore we wish to say most positively to our subscribers, that the reading matter in the Farmer will always contain not less than* 32 *full pages monthly, and often* 36 *to* 38*; and should our advertisements reach* 100 *pages, it will not lessen the reading matter, but likely to increase it. We feel indebted to our correspondents for their largely increased interest in the Farmer, and we are sincerely thankful for the promptness of our subscribers in renewing their subscriptions since the commencement of the year* 1879.

To Stock Breeders.

Enquiries by letter or in person are almost daily made as to where improved stock is to be had, of whom and at what prices. These enquiries we are often at a loss how to answer, and ourself as well as the enquirer are not satisfied. This can easily be remedied, by stock breeders advertising what they have for sale and stating the price or privately informing us of the latter. The breeder will gain much more than the cost of advertising, by having his stock or poultry thus prominently before the public. We shall be pleased to receive catalogues to file for future reference.

FRUITS — PEACH CROP. We fear the strawberries will not be so large as they should be, because of the long drought last month, but the crop will be very abundant, as will be, we are glad to hear, from all quarters the entire fruit crops of every sort. Peaches will be in greater quantity than ever known before. Cherries, no doubt, will be abundant and cheap. How strange it is, fruit growers and truckers ask for fruits and vegetables at their doors more than they can get in the market after paying expenses to get them there. This is not true policy. Bring buyers to the home of the growers by the inducement of lower prices.

Harford County, Md.

This old county is rapidly advancing to the front. Her agricultural society is more largely attended by her citizens who are engaged in agriculture, than any such society in the State, or we might say in the South. There may be associations of the same character which have as many annual visitors, but they are located in some large town, the residents of which are attracted to the annual exhibitions. But the Harford county fairs are fairs held by, and for the mutual profit of, her agriculturists. Her stone quarries, iron banks, and mineral deposits are being rapidly developed, by capital, chiefly from outside her borders, thus increasing greatly her resources and opening home-markets for an increased number of consumers. This county is specially rich in these treasures hidden in the waste places of her territory. Her people have become awake to the propriety of getting out of "old ruts" and adventuring into new enterprises in keeping with the advancing spirit of the age. Grass growing, rearing and feeding cattle, sugar beet growing and sugar-making, cheese and butter-making are receiving attention and above all, concentration of thoughts, interests and capital —both in money and muscle—are strong evidences of present thrift and clear auguries of future rapid prosperity, which will soon outstrip her sister counties, if they do not strenuously imitate her worthy example.

We have gleaned some of these facts in a pleasant interview lately held in our office with Mr. McCoy, president of the Beet Sugar Co., of Harford, who also gave us one fact about feeding and grazing beef cattle which shows that it can be profitably pursued.

Mr. W. G. McCoy, last fall brought 18 head of cattle averaging 1100 lbs at $3.90 per 100, fed them with corn fodder, straw, some hay, and grain durthe winter, turned out to pasture about the 20th of April, and will sell them about 15th July, giving them some grain perhaps along with the grass. He expects to realize $5.50 per 100 on them and that then they will give an average of 1500 lbs.—a gain of 400 lbs. each. If these expectations, which are almost certainties are realized, his gross gain will be $40.00 Per head, minus the cost of keep, that at the most cannot be put higher than $15.00 each, *we* presume. But his gains will have been much increased by having a large quantity of manure, and also having a *better market at his door*, than abroad, for his grain, fodder, hay and grass. But we hope when this lot is sold, to have an accurate report of the cost and profit—a profit and loss account—of these cattle by their energetic

owner, for the benefit of other cattle feeders and graziers of Maryland and the South, where this business has been too long overlooked, by most farmers who desire to make some profit while they improve their lands.

THE GAIN IN WEIGHT OF CATTLE FROM SEPTEMBER TO MAY, FED FOR THE SHAMBLES.—We learn from the *Prairie Farmer* that a lot of 140 head of steers bought by S. S. Bonner & Co., near Missouri Valley, Ia., which averaged in weight, last September, 1,199 pounds when put in the feeding yards, were again weighed lately upon being sold. One pair weighed 2,150 pounds each; five averaged over 2,000 pounds the general average being 1,637½ pounds. The net average gain per head was 438½ pounds.

MARYLAND HORTICULTURAL SOCIETY.—The Maryland Horticultural Society had a highly successful exhibition at its May Meeting. The attendance was large, the weather charming, and the lady visitors seemed enthusiastic in the expression of their interest. There was a large display of plants and flowers, which reflected great credit upon the association and exhibitors. The next monthly exhibition will occur on the 5th and 6th of this month,—June—and no doubt will be well worth visiting, as flowers will then be abundant and there should also be a large display of early vegetables and fruits.

FROST.—On the 10th of May, we noticed a quite heavy frost at St. Denis, Baltimore County, Md., but it did no damage whatever.

CONGRATULATION.—It is a subject of congratulation, that in the past month our subscribers who have been in arrears are paying up, and some, like Mr. J. N. U., of the Eastern Shore of Maryland, and Mr. J. A. W. of N. C., have each paid two years in advance. This would indicate a revival of prosperity in the country and increased interest in agriculture. Our thanks are tendered to them for this evidence of their confidence in us and their appreciation of the MARYLAND FARMER.

As a specimen of many kind letters sent us, we give a short extract from one lately received, written by a North Carolina farmer and banker: "Enclosed please find $1.00 for your Agricultural Journal for 1879. Not flattering at all, I think it is one of the best Agricultural Journals I ever saw."

W. F. B.

THE annual fair of the Cambridge (Md.) Agricultural Society will be held September 30th and October 1, 2 and 3.

Large Farms vs. Small Farms.

We think that it has been well settled that a "little farm well tilled" is better than a large farm badly tilled. That it is impossible to make a large farm pay as well, one year with another, as a small farm. If for no other reason, the owner's or managers eye must be daily upon each operation of the farm to make it profitable, and it is impossible to give that personal supervision necessary to success, to a 100 acre as to a 1000 acre farm. We are strengthened in our views by reading of ranches in California, where there are on one alone 45,000 acres devoted this year to wheat. It may pay well once in five or seven years but the failures in the intervals will eat up the profits of the successful years, and such has been the result as far as known. There have been many in our country who have farmed on like immense scales and they have invariably come to grief. Farming and grazing on these gigantic limits are very different. The Texas Ranch men may and do make money by their herds of cattle, horses, or sheep by the 100,000 head of breeding animals, but that is different from cultivating 40 or 50,000 acres in a single cereal crop.

The fact that millionaires taking up whole districts of country as a farm, and thereby excluding men of small means from any ownership in that territory has led to the success of political agrarianism in California, on which such communists as Kearney have fattened and got into such power as will give a new constitution to the State of Califor nia, which is likely to set its rising power and greatness as a State, back half a century or as long as the contemplated odious constitution exits.

It is clearly to be seen in the older States that when a large land-holder dies, and his estate is subdivided among the children, that the portion of each one after a few years, produces as much as the whole estate did under the control of the common ancestor. Instances of this are daily manifested. Hence we conclude that small farms are more profitable then large ones to the owners, and more valuabe to the State and conducive to the general welfare. France is a strong exemplar of the benefits of small farms.

PRACTICAL SUGGESTIONS.—Liquid manure does its work at once; solid manure requires time, but yet it is certain in its effects.

Bleeding of a wound in man or beast can be stopped by a mixture of wheat flour and common salt, in equal parts, bound on with a cloth.

ENCOURAGING FOR THE SOUTH. — We noticed lately in that ably conducted paper, the Baltimore *Evening Bulletin*, a statistical article upon the decrease of property values in the North, and increased wealth in the old slave-holding States since 1870. While in Pennsylvania and other Northern States the aggregated value of property has decreased hundreds of millions, the resources of the South and South-west, have increased beyond conception, notwithstanding the great depression and unsettled condition attendant upon an entire change in their social and labor systems. The indomitable energy of the Southern people has led them into the paths of industry and economy — sure roads to prosperity. They have seen the necessity of improving their lands, giving less attention to special crops, such as cotton and tobacco; diversifying their crops; stock raising; fruit growing, and last, not least, making investments in manufacturing *at home* what they need, as well as working up the raw materials of cotton and tobacco, not alone for home consumption but for export. These are the great causes which already have produced the startling results above stated. The South has also been forced by her poverty, to grow her own corn and other breadstuffs, and to a great extent her own meats, whereby a vast amount is added to her substantial wealth, and saved the expenditure of millions of dollars in other States annually to procure these articles of necessary food for her people and her cattle and horses. It was always an enigma why the South with such a fertile soil and propitious climate, should depend upon her sister states to furnish her with food and raiment, farm stock and implements, and the commonest household articles, even brooms and wooden pails.

Let the South persevere and live within itself! Manufacture everything she needs! Grow more grain than it can consume! Cover her hills with flocks and herds! Make her vallies teem with grass, cotton, tobacco and fruit, so as to furnish the outside world with these commodoties, some of which at seasons of the year when they can be had no where else in this country, and the South will rapidly become the richest, most prosperous and happiest portion of America — and be recognized as the extensive Eden of the world!

THE FAT STOCK SHOW AT CHICAGO, ILL., will be held on the 10th of November, 1876. The premiums for the different classes are several and for large amounts: ranging from $15 to $200 each.

THE Talbot County Agricultural Society has fixed on the 10th, 11th and 12th of September as the time for the next annual fair at Hambleton Park.

GEN. W. G. LEDUC, COMMISSIONER OF THE AGRICULTURAL DEPARTMENT OF THE U. S.—We are bound to acknowledge the paramount importance of the National Agricultural Department, whose head should be one of the constitutional advisers of the President, as there is no interest represented in the cabinet of more vital importance to the nation than that of Agriculture. The present incumbent. Gen. LeDuc, is certainly an enthusiastic and able commissioner, and has already done much to convince the public of the feasibility and final success of two great products, which if they can be profitably introduced, will prevent millions of dollars going out of the country; give employment to hundreds of thousands of people not employed now in useful or remunerative work; make our land independent of the rest of the world, and immortalize Mr. LeDuc — however much he may be now ridiculed by narrow-minded or prejudiced minds. These products are Tea and Sugar—the last from corn-stalks, sorgum and beets We believe if the whole people will take hold of these measures so warmly advocated by the commissioner, that we shall in five years produce all the sugar and tea that our country can consume, and at far less price and of better quality than now, we deplete the public purse to annually pay other countries to furnish us.

We have faith in the remark Mr. LeDuc makes to us in a recent private letter: "Let me say to you—I have no hesitation in saying that tea cultivation will be established in this country on a sound, sure basis in the next three years, for in that time the sixty thousand plants that have been sent out during the past year are ready to yield their leaves to the picker." We have no hesitation in saying that we believe the Department of Agriculture under the administration of the present commissioner, has made great and important advances in the way of benefit to the whole people of the United States. He has lifted it from its narrow course and placed it on an elevated plain, and is getting it in a position to be far more useful and ultimately to become indispensable to the prosperity of the country. Why should not agricultural America have an Agricultural Minister in the Cabinet, as well as prosperous, independent France. The farmers of France paid the principal of its great debt to Germany, while we—without an agricultural cabinet officer—were debating in Congress about how to meet the *interest* on our government bonds.

Mr. John T. Best, of Frederick county, has just sheared from twenty-eight sheep 353 pounds of wool, average of 13 pounds; an excellent yield.

For the Maryland Farmer.

Theory Versus Practice — Agricultural Education.

It is with mistrust in his powers of doing justice to the subject of this article, and without the expectation of presenting in your columns any *new* matter or startling theorem, that the writer ventures on a field of investigation so often and more ably gone over by others. Yet would not the yielding to similar fears be a bar to much of the literature of the present in science, history, language, &c.? To *advance* in the present state of intellectual development, a single line of inquiry is the arduous work of the specialist, the more satisfactory grouping of available knowledge, the presenting of it in a readily to be grasped and digestible form, may be the work of any student and reflecting man, Even well known facts and arguments, when presented in new combinations, may serve a purpose scarcely less important than the justly pre-eminent work of the discoverer.

Without entering into the analogies to be found in every branch of human industry, the agriculturists may be divided into two classes: the theorists and the practicists. As in other branches of industry, so in this; the disciple of each of these classes stands closely by the flag of his party and the terms "visionary," "book farmer," "impractical" are hurled again heorist, who retorts by a depreciating shrug o he "ignorance," the "holding to old traditions" and "the clod-hopper tendency" of the practicist. Like in divisions upon political, sectional and other questions, ephitets and class designations are not long wanting where party lines have been drawn. These widen the breach and finally the theorist believes in and adheres to his theory in spite of a practical demonstration of its fallacy, and the practicist gives a mistrustful attention to any improvement, advanced mode of culture, when coming from and explained by the theorist. Let me give two illustrations in point. When the writer, then a student under one of the leading chemists of Europe, had amused himself in an idle laboratory hour by carelessly mingling chemical compounds, the endeavor to stir up a precipitate of the mixture with a *steel* rod, sent the whole in a violent explosion to the ceiling of the laboratory, and the descending shower of ingredients did not improve a new suit clothes. The Professor inquired of the "slightly demoralized" student the cause of the explosion. Being informed of the contents of the mixture he at once exclaimed: "Why! it *could not* go off!" A verification of the Professor's *theory* of explosions would have saved that student a tailor's bill.

Again. A *practical* farming friend, by a fair use of lime, obtained a good clover harvest, and the field being very conveniently located for such a crop, he thought of continuing the run of clover. Failures in the crop after awhile, induced him to augment lime dressings and any suggestion of having on his hand a true case of "cloversickness" of the field, was pleasantly "pooh poohed," as the "gentle aberation" of a theorist.

Now as to the reasons that yet permit an antagonism of theory and practice in agricultural pursuits. Our farmers are perhaps more than those of any other country yet under the influence of this wrong and hurtful state of affairs. The ready change of business pursuits permitted by American institutions forms our agricultural population from two classes: those who join the ranks of agriculture from other pursuits and professions, and the hereditary farmers. The former will generally be found on the side of theory; the latter on that of practice. The former, entering the attractive field of physico chemical inquiry, adopt the teachings of the analyst, the physicist,—the latter mostly direct descendants of the agricultural classes of Europe and of the peasantry of those countries, stick to *good old* custom and the long ago brought over routines of the forefathers.

After a superficial dip into chemistry, the writings of Liebig, Fresenius, &c., seem to give to the theorist the "open sesame," wherewith to unlock the secrets of nature and to change the elements of the soil into plant-food and subsequent animal sustenance. To him it is only necessary to be informed of the analysis of the plant-ashes and the soil, and the latter can chemically be manipulated so as to cover any deficiency caused by the abstraction of the former. Yet, should not the facts evolved from experiments made by Professor Naegeli and Dr. Foeller shake this confidence of the theorist? To a soil free from plant-food (powdered turf) all the ingredients necessary for a fertile soil, (carbonate of potash, carbonate of ammonia, carbonate of soda and phosphate of lime) were added, and yet, "in this artificial soil, as well as in some prepared by Boussingault and others, abundantly proved with all the elements of food, some of the plants grown could even remotely bear comparison with plants grown in a fertile arable soil." And why? It may out theorize the theorist, and cause a smile at the expense of the writer, when in answer to this query, he brings out *his* theory and gives the reason, which, in his opinion, lies at the bottom of many agricultural failures of the theorist. The physicist enlarges upon the theory of molecular attraction, the chemist upon the law of affinities, and yet, when

we have admitted these laws, are we any nearer in solving the great secret of life, have we reached the force that ever active combines the elements in their countless changes? All life, all physical combination is but the emanation of that force and to disregard it in the laws of the constant changes of the particles of the soil would be as unjust as to disregard it in its manifestations of plant and animal life. The agriculturist stands in the great laboratory of nature as a careful observing assistant. The great chemical bases forming the arable soil, the plant and the animal are the same, the force and laws of changes are in a manner the same, and the agriculturist who throws out the latter in his deductions upon the analysis of the soil, leaves out a factor whose absence will deprive his best theoretical problems of a satisfactory solution.

Having thus briefly touched upon what I consider the source of the faults of the *positive* pole of agricultural mistakes, the faults of *commission* of the theorist; I turn to its negative pole, the faults of *omission* of the practicist. First, the "following of the good old custom" is in itself a contradiction. Where, in the history of Agriculture would the 'good old customs' of agricultural work be found? In rotation of crops, thorough preparation of the ground, changes of seed seed, &c? But the practicist herein departs from "good old custom!" These are *inovations,new-fangled theories* and their prototypes were the exhausting of new soils, the Egyptian plow, the thrashing of the grain by the flail and the hoofs of oxen driven over the sheaves. If the improved methods are considered as evolutions of progressing practical attempts, the query arises, should in the present intellectual stage of the progression of sciences, agriculture alone make its way by hesitating, blind trials and slowly evolved results? What would be thought of the engineer who should propose to establish the laws of metallic cohesion by attempts in bridge building, followed by disasters, consequent upon the use of materials insufficient to support the strain? Will the unscientific application of manures and regardlessness of the food requirements of each plant-species be a rational method of improving crops? Surely at heart every intelligent agriculturist is more or less a theorist, and only the hard terms and difficulty of acquiring something more than the information of the tyro, has prevented the large class of practicists from cordially joining their theoretical brethren. But just on such union of practicist and theorist, by joining practice and theory, depends the advancement of that great foundation industry of human society. This brings me to a few concluding words upon agricultural education. The means for such to the agriculturist of the present and the agricultural society, the agricultural press and the experimental station, to the agriculturist of the the future, the laboratories and practice of the agricultural school, to both a practice enlightened by a theory, which places causes and effects, elements and combinations, principles and evolutions before the agriculturist. Does the agricultural class fully avail itself of these means?

The agricultural societies,—of some one of these every agriculturist should be a member. If advanced in agricultural lore, then he is fit for an instructor. And yet, is there amongst agriculturists *one* who can truthfully say that he has neither information to impart nor information to receive? Every one knows something, some method, some specialty, owns *some* information that may benefit others, and these societies should be the foremost media in the exchange of agricultural thought.

The agricultural press in its vast volume of periodicals and books, brings the views of the leaders of agricultural progress before the rank and file of the great army of agriculture. Does the agriculturist avail himself of this great lever for self-improvement? At first much of this writing may lack in interest by reason of non-acquaintance with many of the terms used, the scientific substratum that underlies in its wide ramifications of the natural sciences, physics and chemistry, the vast field of agriculture, yet, it would surprise many a "hardened" practicist if he would test the results of a single winter's careful reading of agricultural literature, supplemented by the judicious selection of popular and brief treatises on the sciences named.

The experimental station is a step in advance and is sure to follow where the agricultural society and literature have cleared the path. Few farmers can, out of their individual means, defray the experiments that will suggest themselves. Here and there isolated experiments are made, but often under circumstances which the exchange of ideas brought about by the agricultural society would have rendered unnecessary, and such experiments are often but of little use to their originator and their results lost. Thus, the experimental station has nearly in every instance become the adjunct of the agricultural society in Europe. The experiments made after careful consideration by the members of the society and kept on record, formed the basis of a neighborhood's enlightened agriculture and are the crucibles which test the problems of the theorist and the sources of information of the agricultural writer. These the means for ag-

ricultural advancement at the command of the agriculturist of the present, to him of the future the agricultural schools opens a combination of these, enabling him to take an extensive onward sweep of improvement where his predecessors had slowly to stride over the ground. And yet I think I meet here many a serious shake of the head and a twofold objection, first, that these schools do not show in their results the assistance to agriculture to be expected from them, and that the agricultural student by attending the schools is more often diverted from than attracted to agriculture. Is the first objection a just one? Should we expect a thorough permeating of the vast mass of the agricultural profession from the limited leaven these schools have in this country as yet been able to prepare and see an agricultural revolution accomplished by a few scattered individuals? That these schools are centres from which a radiation of agricultural improvement will go out, let the influence of Hohenheim, the Gaisberg, the Cirencester College and a multitude of others in Europe prove. "Festina lente" is the motto of every lasting and spreading move in matters of the amelioration of any of the industries and education and the fruits of the deeply rooted, wide-spreading tree can not be expected from the tender sapling recently transplanted to the field. The second objection, it will startle many an agriculturist to find, met by the counterstatement, that the reason of many a young man's leaving the agricultural profession, though much against the wishes of the father, lies at home and is often the result of the mistaken policy of home management. That this often tends to the direct opposite of the result to be attained, a few words will prove. The young clerk, mechanic, tradesman receives some remuneration, even if small, for his work—with most farmers it is thought that board and clothing, and a grudgingly given irregular pocket money, is sufficient pay for the labor of a son. The consecutive, steady work, permitting a possible saving of time given to the paid laborers, whilst the odds and ends, the veratious *little* jobs requiring a readiness at *all* times, are usually placed upon the son; any suggestion or new method proposed by him is but too often discouraged by remarks of the "egg knowing more than the hen," young folks thinking themselves very smart," and a "holding forth" upon the good old times and the degeneration of the rising youth of the land. Added to this it must also be borne in mind that one main element making farming a hereditary pursuit in Europe, is here wanting, viz: the entailment of the estate, and that through the sale or division of the property, the son often fears to find himself with a profession and without the appliances for its prosecution. For such cases in Europe the employment of young agriculturists as administrators of farms, as assistants of managers of large estates, &c. provides and this advanced stage of agricultural economy this country has not reached yet. What I would then urge upon the agriculturist interested in the continuance of his son in his own profession, is, make matters pleasant at home, give to honest labor a suitable reward, encourage your son in agricultural inquiry, and if possible, prepare yourself to *lead* him on that road and thus begin his agricultural education, where all *good* education should ever begin *at home*. That such a young man would fail to appreciate the extended advantages of the agricultnral school, fail to reap the benefits designed in its establishment and lastly, fail to use the knowledge acquired for the amelioration of the agriculture of the homestead, that of his neighborhood and State, are suppositions which deserve no refutation, and their reverse will be apparent to any fair minded and unprejudiced man. Very truly,

"HAYFIELD."

A NEW CHEESE FACTORY IN MARYLAND.—A number of citizens of Montgomery, Howard and Prince George's counties have organized a joint stock company to manufacture cheese. Job Waters, of Montgomery, has been elected president; Columbus Brashears, secretary; Joseph Darby, treasurer; C. C. Weston, Caleb Carr, Alexander Cair and Harry L. Carpenter, board of directors. The factory is to be located in Prince George's county, near Joseph Darby's residence.

[This is a movement in the right direction, and we bid this laudable enterprise God speed. Eds MD. FAR]

An offer to sell a farm for a given price, even though it be by letter or other simple writing, is not binding upon the proposer until actually accepted by the buyer, and he has also agreed to take it, and pay the price stated in the offer; therefore, the owner may retract his offer to sell at any time before it is accepted, and he is notified thereof.—*Judge E. H. Bennett.*

As the chief producer of wealth, the farmer in Japan has always held a high rank, only government officers, priests, teachers, and soldiers being regarded as his superiors. The agricultural population, according to the last census, numbered about 16,000,000, or nearly one half the entire population, and the men are usually able to read, write and cipher.

The Poultry House.

For the Maryland Farmer.

Light and Dark Brahmas.

In the days of our grandsires, the huge Shanghai with his long neck, huge legs and scrawny body, was looked upon as some heathenish foreign fowl, and stalked about the fowl yard on a species of sufferance. Little did they imagine he was the foundation of the birds of exquisite plumage and massive form we have to-day in the shape of the Brahma and Cochins, and yet, the miracle has only been the result of careful breeding such as has made the magnificient, smooth-coated Hereford ox of to-day out of the long-haired, gaunt-framed body of his predecessor. I fancy I can tell your readers little about Brahmas, for every yard in the country is familiar with them, but I can, perhaps, crystallize into a compact and tangible form what they know of them. There are only two distinct varieties of Brahmas, the light and dark. In many qualities they are alike ; in some they are in great contrast ; and these points, which I shall briefly notice, will, I imagine, convey all I want to say. First, color. The Light are, or should be solid white in body, though the under feathering may be darker, with black tail feathers, mixed black and white, flight and even covert feathers, and delicate black pencilling on the neck. The color is the same in both sexes. The Dark are, in the cock, of solid black color in breast and leg feathering, greyish white neck pencilling, and the whole back greyish white, with blue wing bars ; in the hen, the most exquisite penciling of steel or brownish grey throughout. Second, size. Here the Light have the advantage in the eyes of some, the cocks ranging from twelve to eighteen pounds, the hens from nine to fourteen. The Dark sometimes rival these weights, but when they do, do it from solid meat, for their frame is not so large. Third, laying qualities. Here again the Light take the lead, being far more certain winter layers than the Dark, and more continuous layers. Fourth, setters and mothers. Both have their advocates in this line, but I consider the Dark the best for two reasons. They are lighter, less leggy, less apt to break their eggs or trample their chickens, and have nearly, if not quite as much fluff and body. Fifth, hardiness and meat producing qualities. In these they both run each other close, their hardiness being only second, in my opinion, to that of the Partridge Cochin, which I think the fastest grower of all the Asiatics, and almost equal to the Houdans. Sixth, confinement or run. Like all Asiatics, they are easily penned and bear it well enough, though a free run is of course more in accordance with nature, and more likely to produce the best results in the birds. For a large farm both are too heavy and lazy to be of the best service, but used to cross with the Houdan or Leghorn, the male bird being in all cases to be chosen from the latter breeds, they will furnish the best and earliest chickens for market the poultry man can find. Their clear yellow skin and legs are additional recommendations, and in size and juiciness of meat they equal most any of the breeds. The cut I send you is a very fair semblance of a Dark Brahma cock.

T. B. DORSEY.

Toulouse Geese.

This breed, named after a city in the south of France, where they are largely raised, is probably the largest in the world. They are grey with white bellies ; light gray on the body and breast, and dark grey on neck and wings. Their bills are dark flesh color, and legs deep orange. They are extremely large when fattened at maturity, averaging from 45 to 50 pounds per pair, sometimes exceeding even this weight. They grow rapidly and will fatten readily at any age. At four weeks they will weigh from 6 to 8 pounds. They are very hardy, being much stronger when young than goslings usually are. They are profitable on account of the abundance of feathers they produce, which together with their extreme hardiness, makes them a desirable breed to keep. They are very prolific layers and seldom offer to sit. Their eggs usually hatch remarkably well. Any one wishing to start in the profitable occupation of geese-raising, can not do better than secure a breeding stock of Toulouse Geese.—*Baltimore Live Stock Bulletin.*

Comparison of Breeds.

Some time ago Mr. Isaac Lynds, of Ohio, published in the *Poultry World* the result of his experiment with 10 pullets of each 5 different breeds for 6 months. They being about 6 months old, giving each breed a comfortable house and a yard 40x40 feet, he kept an exact account of eggs and feed and gave the following as the result :

"The Dark Brahmas ate 369½ quarts of corn, oats and wheat screenings, laid 605 eggs and weighed 70 pounds.

The Buff Cochins ate 406 quarts, laid 591 eggs, and weighed 73 pounds.

The Grey Dorkins ate 309½ quarts, laid 524 eggs, and weighed 59½ pounds.

The Houdans ate 214¼ quarts, laid 783 eggs, and weighed 45½ pounds.

The Leghorns ate 231½ quarts, laid 807 eggs, and weighed 36½ pounds.

To make this experiment more complete, and to show which lot gave the most profit, including both eggs and flesh, we have supposed the fowls to be dressed and sold at the end of six months at 20 cents per pound; also, that the eggs were worth 24 cents a dozen (two cents each) and the cost of food was 2½ cents per quart, or 80 cents per bushel. The figures would then be :

	Feed cost.	Value eggs.	Total meat.	Total value.	Total profit.
Brahma	$ 9 22	$12 10	$14 00	$26 10	$16 38
Cochins	10 15	11 82	14 60	26 42	16 27
Dorkins	7 72	10 48	11 90	22 38	14 63
Houdans	5 35	15 68	9 10	24 76	19 41
Leghorns	5 77	16 14	7 30	23 44	17 69

The greatest profit on the investment is thus in favor of Houdans, with the Leghorns next and the Dorking least. It would have been interesting, however, to know the weight of the eggs laid by the several varieties, to see what actual difference there was in the amount of food furnished by them, and its value at a fair estimate by weight. On such a basis it is quite probable that the Brahmas would have shown the greatest profit. And another item to be considered by investors is, that where the fowls must be confined, a four foot fence will answer for the large breeds, while for the light bodied breeds eight or ten feet will be necessary, and even then their wings will have to be clipped. In addition it is the general verdict that the large breeds bear confinement the best, and are more easily kept in good health and from those vicious habits of plucking each others feathers and eating their own eggs. But all breeds will give trouble enough in confinement, if not furnished with plenty of employment, water and food.

It would be of great benefit to the amateur breeder if more of these experiments were published, as he could decide more readily the breed that suited his wants, and in many instances saving time and money, to say nothing of the round of abuse the professional breeder gets behind his back for sending no account birds.— *Poultry and Pet Stock Journal.*

Directions for Caponizing.

The proper age at which to castrate cocks is from two and a half to six months. They should be fed sparingly for several days previous to the operation, but need not be starved. The less food there is clogging the intestines, and the less danger is there of cutting any of them. It can be done by one person, but the bird must be securely fastened down with straps, to prevent its struggling as the operator must have full use of both hands. Fasten firmly, left side downward ; make the cut at a point on a direct line between the shoulder and hip, just midway between the two last ribs — not too deep, lest you cut the intestines, but deep enough to part the ribs clearly. Before making the incision remove the feathers for a space of two inches square ; put the spring forceps in, to keep the slit open, and you will see the parts you wish to remove, lying together, about an inch below the skin. Over these is found a thin inner skin or sack, which must be broken with the sharp hook. Raise the testicles, and, with a horse-hair loop through the eye of the instrument, cut the cord which hold them. Lift them out with the spoon end of the hook or with the tweezers. Remove the left testicle first, and there will be no flow of blood to obstruct the other. When both are removed, draw the skin together with needle and thread, and mat some of the feathers in the fresh blood over the wound. Turn the bird loose, and for a week following the operation, feed sparingly on soft food, and give plenty of fresh water.

CREAM PUDDING.—One quart of milk; four tablespoonfuls of flour; 4 eggs ; butter ; salt; sugar ; wet with a little milk the flour, put on the remainder to boil; when it boils, stir in the flour, boiling it several minutes, stir all the time to prevent lumping, add a little salt, butter size of an egg, sugar and four well-beaten eggs, put into a dish, and when nearly cold sprinkle with sugar, and put it into the oven to crisp.

CURRANT AND GOOSEBERRY PIE.—Currants and gooseberries are the best for pies when of a full growth, just before they begin to turn red; they are tolerably good when ripe. Currants mixed with ripe raspberries or mulberries, make very nice pies. Green currants and gooseberries are not apt to be sweet enough unless the sugar is scalded in before they are baked, as the juice of the currants is apt to run over while they are baking and leave the fruit dry. Stew them on a moderate fire, with a teacup of water to a couple of quarts of currants; as soon as they begin to break, add the sugar, and let it scald for a few minutes. When baked without stewing, put to each layer of fruit a thick layer of sugar. There should be as much as a quarter of a pound of sugar to a pint of currants, to make them sufficiently sweet. Green currant pies are good sweetened with molasses and sugar mixed.

HORTICULTURAL.

American Pomological Society.

The American Pomological Society will hold its Seventeenth Session this year at Rochester, New York, beginning on the 17th of September and continue three days. Hon. Marshall P. Wilder, President, Boston, Mass. and Mr. Robert Manning, Acting Secretary, Salem, Mass. From the circular we have received, we make the following extracts:

"All Horticultural, Pomological, Agricultural, and other kindred Associations in the United States and British Provinces, are invited to send delegations as large as they may deem expedient; and all persons interested in the cultivation of fruits are invited to be present, and take seats in the Convention.

It is earnestly hoped that there will be a full attendance of delegates from all quarters of our country, thereby stimulating more extensive cultivation by the concentrated information and experience of cultivators, and aiding the Society in perfecting its Catalogue of Fruits. * * *

The coming session will derive a special interest from being held in the midst of one of the great fruit-growing regions of the country, and in a district unequalled in the world for the extent of the nursery interest, in the propagation of fruit and other trees. It is believed that the city of Rochester is more easily accessible to a larger number of persons interested in the objects of the Society than any other city in the United States, and a full attendance, and an interesting session are therefore anticipated. When we consider the importance of fruit culture in North America, its progress during the last thirty years under the beneficent action of this Society, its moral, social and sanitary influence, and the increasing demand for its products both in this country and Europe, rendering it a source of national wealth, we feel justified in urging the attendance of all who are interested in the welfare of our country and the development of its wonderful resources, in this branch of industry. * * * *

Members, delegates and societies are requested to contribute collections of the fruits of their respective districts, and to communicate in regard to them whatever may aid in promoting the objects of the Society and the science of American Pomology. Each contributor is requested to prepare a complete list of his collection, and to present the same with his fruits, that a report of all the varieties entered may be submitted to the meeting as early as practicable. A limited number of Wilder Medals will be awarded to objects of *special* merit.

Packages of fruits, with the names of the contributors, may be addressed as follows: "AMERICAN POMOLOGICAL SOCIETY, care of JAMES H. KELLY, ESQ., President of the Western New York Agricultural Society, Rochester, N. Y." Freight and express charges should be prepaid.

All persons desirous of becoming members can remit the fee to THOMAS P. JAMES, Esq., Treasurer, Cambridge, Mass. Life-membership, twenty dollars; Biennial, four dollars. Life-members will be supplied with back numbers of the proceedings of the Society as far as possible.

We learn also from the circular that a number of the most eminent horticulturists and pomologists in this country are expected to be present, and have been invited to prepare papers to be read, or to deliver addresses on sublects appertaining to the objects of the meeting. The instruction to be gained by attending this meeting, combined with the attractions of the locality will more than repay the expense and worry of the travel.

The Culture of the Sugar Beet.

The beet sugar enterprise in Maine seems in a promising way, and the farmers can receive, this coming season, benefit from the attempt. The company, in order to encourage the growing of beets, pay the uniform price of $5.75 a ton for the beets, when delivered at any depot in the State; and this price makes the growing of beets the most profitable of farm crops, provided the culture be understood, and attention be given to the conditions for success.

The cropping capacity of the sugar beet is not as great as is that of common mangolds; and yet it is sufficiently large, and varies sufficiently, to offer inducements towards care in cultivation, and the exercise of skill. In Silesia, the average crop is from nine to nine and one half tons per acre; in Saxony, from eleven and three-fourths to twelve tons per acre, and exceptionally fifteen tons; in France, from nineteen to twenty tons per acre. In Massachusetts, premium crops have been reported from six hundred to nine hundred and forty bushels per acre, or say eighteen to twenty eight tons. In Maine, last year, we have heard of crops from twenty to thirty tons, or that rate, per acre.

The expense of growing, according to Achard, is about sixty days' work of man per acre, and in Russia is given at about forty days' labor of man. The items of labor on the crop proper seem to be the sowing, singling, four hoeings, and harvesting. This should be done largely by machine, although hand-labor must not be begrudged, when required by the condition of the crop.

The beet is a plant which, to be profitably grown, requires a careful preparation of the land. The soil should be made deep by plowing, be rendered friable by repeated stirrings, and the surface should be formed into a smooth seed bed. If testimony is to be believed, scarcely too much attention can be given to these preliminary operations. The best soil is a deep, mellow, sandy loam, with a permeable subsoil. The land requires to be well manured, and the manure well mingled with the soil; and an additional supply of commercial fertilizer, as a rich superphosphate, should be furnish-

ed to the drills, along with the seed. About sixteen pounds of seed per acre; and this should be planted in drills, about eighteen inches apart in the row, and the drills sufficiently far apart to admit of one horse with implement to pass between. The nearer these drills are, the better for the sugar yield, as the beets are dwarfed by crowding, and the smaller beets, say from one to one and one-half pounds, are richer in sugar than those of two to three pounds weight. It will always be found desirable to plant this seed with a machine, of which there are many good kinds to be obtained. It is always well to plant considerable seed, so as to escape accidents. When the beets are thinned, as they should be when about three-fourths inch high, the surplus plants can be removed more economically than new plants can be grown in the vacant spaces. The depth to plant is from one-half inch to one inch. In Dr. Grovven's experiments, the plants from seed planted from five-eighths to one and one-eighth inches deep were always the most vigorous. The time of germination depends upon the mean temperature, and various other circumstances, varying from three to twenty-two days.

There is usually one hoeing or cultivating of the field before thinning, and then cultivations after thinning. Like the corn plant, the beet plant requires frequent stirring of the soil during growth; and unless this be attended to, the farmer need not expect success. It is a maxim in Germany, that "The beet requires much hoeing," and again, "Hoeing makes sugar," Yet care must be exercised not to continue the hoeing too late in the season. The beet plant usually makes leaves before it makes much root, and the leaves elaborate the carbonic acid from the atmosphere, form product, and store the product in the root. Hence there are two stages of growth to be observed,—the first that of leaf growth, the second that of root growth. During the first stage, frequent cultivation is very beneficial; but when the leaves are formed, then all cultivation should at once stop.

In lifting the beets at harvest, a spade in used to loosen the earth and pry up the root, which is then freed from earth by knocking two roots together, and then thrown into a pile, the leaves having been first cut off by a strong blow with a long knife. The piles are then immediately covered with leaves for protection from the sun, and prevent the drying effect of wind, so that the beets may not become wilted, which is prejudicial to their value to the manufacturer, as well as diminishing in weight for the grower, who sells by the ton, and is therefore equally interested in preventing evaporation from taking place. Machinery has also been used for the digging, and its action is well spoken of.

When the pulp from the factory is returned to the soil, through the feeding to cattle and using the dung, the beet crop is not very exhausting; and a competent authority, T. T. Fuhling, asserts that the substances restored to the soil by the manure resulting from the feeding of two thousand three hundred pounds of hay, together with the refuse or pulp, is sufficient to restore the fertility which the average crop has removed.

Indeed, experience shows that a superphosphate in the drill should generally be used, not only to hasten the early growth of the plant so as to push it ahead of dangers incident to the young state, but it also acts specifically in increasing the fibrous roots of the plant, and thus renders it better fitted to feed upon the plant-food in the land.

The teachings of those who have written on beet-culture seem to furnish the following rules:

1. Use stubble land.
2. Use land of deep and permeable soil.
3. Plow in the manure deeply, and harrow thoroughly.
4. Use artificial fertilizer in the drill.
5. Plant thickly, and as early as possible.
6. Cultivate intensely, *i. e.*, frequently and thoroughly.
7. Harvest as late as the season will allow.
8. Prevent the roots from wilting after they are pulled.
9. Market as early as possible after lifting.

—*Scientific Farmer.*

The Lawrence Pear.

This pear does not receive as much attention by general growers as it deserves, though it is beginning to be appreciated. We have few superior in point of quality or for keeping late, and none in its early fruiting and steadiness of bearing, or in the hardiness of the tree. It is very accomodating too in ripening. It commences to mature in the latter part of October and goes on, as it is exposed to a warm atmosphere or kept in a dark, cool place of even temperature, up to February! We should suppose it would just be the pear for general cultivation among farmers, who, if they would give it the same attention they give to other crops of the farm, would be sure to get abundance of excellent fruit. The tree can be obtained at almost every nursery, and we commend it to the attention of our agricultural readers as a substantial acquisition in the pear line and not a fancy article.

If we were to be asked to name the best pear for general cultivation, we should unhesitatingly say the Lawrence.—*Germantown Telegraph.*

THE CLOSE OF THE HALF YEAR.

This number closes the half year of the 16th volume of the MARYLAND FARMER, and we suggest that those who failed to subscribe at the begining of the year, should now do so, and if desirous only to make a sort of "trial trip," send 50 cents for the next six months. This small sum will give them an opportunity to test its merits and enable them to form correct conclusions whether it is or not worthy of their patronage another year at the small cost of only $1 in advance, per annum. The illustrations are worth the cost. Often a single article is worth five times the price of this monthly, for a whole year. *Farmers*, try it. *Ladies!* we ask you to take it, and read the department dedicated to you and we are sure you will not willingly be without it afterwards.

Col. Ware's Letter.

Our readers will recollect a pleasant communication of Col. Ware in our April number, as to the "*Most Profitable Cattle for the Farmers*." The article was copied in the "Bulletin of the American Jersey Cattle Club," with our foot note, and accompanied with a commentary which the Col. has given in full, and replied in his usual, quiet way. We would here add that Col. Ware is perhaps one of the oldest distinguished stock breeders and agriculturists at present living, being at least an octogenarian.

"The following frank commentary of our friend should not be withheld:

"Now did you ever! The 'Col.' in a lucid interval says he has no experience, but gives his *theory*. When a man is ignorant of anything. and is candid enough to own it, I can respect him, if he can be silent; but if he goes on blathering, one may know that, although confessing ignorance, he is insincere, and conceitedly thinks he knows.

"'Too small for oxen or for beeves. If they would readily take on fat their carcass would not pay for the feed to make it.'

"What a ruinous business to feed sheep, being so much smaller than Short-horns!

"'Everybody reads with pleasure and finds instruction'!"

Messrs. Editors of Maryland Farmer:—A kind friend sent me the above from the "Bulletin of the American Jersey Cattle Club"—from its name I judge to be advocates in duty, of the Jersey cattle.

I own no cattle of any kind, and as you know, have not farmed for some years. My age renders me unfit for that occupation, and of course have no interest in any kind of stock, and wrote my piece in the hope my experience might bring young farmers to reflection, and to experiment for their best interests.

The "frank correspondent" advances nothing to show the superiority of Jersey cattle for profits in farming, nor attempts to refute or deny my position, but indulges in personalties, to say the *least* uncourteous; "lucid intervals," "ignorance," "insincere," "conceitedly," "blathering," I suppose are poetical. As I did not seek the respect mentioned, I must bear its loss, and fear the "*frank* correspondent" is dyspeptic. I am unwilling to discuss, except as gentleman-farmers should discuss, subjects of agricultural interest. I had, you know, long experience in breeds of cattle, never had, or would have a Jersey, therefore had no experience in them. I have *observed* them for years and probably never should have the "lucid interval;" they have been in this part of the country—I know of none now. Col. Powell's Short-horn cow, "Belina," gave 9½ gallons of milk per day, 20½ lbs. butter per week, her cream churned into buttter in 3 seconds, witnessed by the Pennsylvania Agl. Society. I bought her and failed to get her home. I had another whose cream churned into butter in 3 seconds with a teaspoon; will any one doubt "*in lucid intervals*" the success of Short-horns in beef?

The truth is, *all kinds of animals* have their successes and failures in milk and it runs in families—and almost all importers have attended to importing beef quality only.

Another point of the "*frank* correspondent" "feeding sheep and Short-horns," this I consider a clear, if not a "*frank*" admission, tho' in division, as putting sheep ahead of Jerseys, I think I will be able in this to show he is "*frank*."

I have had also experience in sheep, as you know, but only would keep the mutton breed of sheep as profitable in farming. I never sold mutton yearlings, even *part-bred* under $10 each. I have sold 2 years for $35 each—all on the farm. I have been offered $100 each for all I brought to 200 lbs. net—this I could have easily done, as some brought over that, and as high as 255 lbs. net. I had a yearling buck weighing 430 lbs. — but the war broke it all up; it must be borne in mind their wool paid their keep; and it may be doubted if, not only the Jersey, but any other breed of cattle can render a better profit. I have not taken the sales for breeding purposes in at all.

J. W. WARE,

May 17th, 1879. Berryville, Va.

LADIES DEPARTMENT.

Chats with the Ladies for June.

BY PATUXENT PLANTER.

"Not useless are ye, flowers; though made for pleasure,"
Blooming o'er field and wave by day and night;
From every source your sanction bids me treasure
Harmless delight."

"And all is extacy, for now
The valley holds its Feast of Roses;
That joyous time when pleasures pour
Profusely round, and in their shower
Hearts open, like the season's rose,—
Flowret of a hundred leaves,
Expanding while the dew-fall flows,
And every leaf its balm receives!"

June, month of roses, has come again to make gardens bright and sweet with its wealth of roses and other flowers.

The flower bed must be kept clear of weeds and the earth stirred often; water, when needed, should be applied not in little sprinkles, but at intervals copiously. This is better than a little sprinkling each evening, unless it be for some delicate plants that do not like a heavy showering.

Bees are to be looked after with great care this month unless you may lose many colonies. They are now about leaving the parent hive to seek other homes, and they are in a non-quiescent state.

Such of you as have vegetable gardens, the dairy or the poultry yard under your charge, will necessarily be busy this month, and such as have all these on their hands, will find but little time wherein to find leisure. My advice is to be up early, be diligent, and you will be comforted in the end by the happiest results crowning your industry during June—the all-important month for success in garden, dairy and poultry yard.

I close our chats for this month by giving you the directions of the *Scientific Farmer* as to

PROPAGATING FLOWERING PLANTS.

With a little care many plants may be propagated for bedding purposes. The best way to do this is to take a deep earthen baking plate or saucer, and fill nearly with sand, which must be saturated with water so that little will stand upon the surface. Put in cuttings of the plants to be increased, and place upon a shelf in the window in the full sun. The only care needed is to keep the sand thoroughly saturated with water. Cuttings need not be over one inch in length, while pieces one half inch in length will make good plants. With a little experience in propagating in this way, and the growing of seedlings, one may supply all the plants needed for a respectable flower garden with a little expense."

Also from an *Exchange*, a recipe to expel those annoying pests—flies.

"For three years I have lived in a town, and during that time my sitting room has been free from flies, three or four only walking about my breakfast table, while all my neighbor's rooms were crowded.

I have often congratulated myself on my escape but never knew the reason of it until a few days ago. I then had occasion to move goods to another house, while I remained on for two days longer.

Among other things moved were two boxes of geraniums and calceolaris, which stood in my windows, being always open to full extent, top and bottom. The boxes were not gone half an hour before my room was full of flies as those around me.

This, to me, is a new discovery, and perhaps it may serve to encourage others in that which is always a source of pleasure, namely, window gardening.

Mignonette planted in long, shallow boxes placed on the window sill, will be found excellent for this purpose."

This remedy is pleasant, tasteful and ornamen- and is easily tried by any one. If it is true, it will be a blessed discovery, if not effectual or worthless it must add to our homes a beauty and a delight. We can not have too many flowers in and out of doors in sultry, hot summer time.

I append also two recipes which I can recommend, having tested them lately by tasting the dishes made after these formulas:

PRUNES A LA RUSSE.—Stew one pound of prunes with a little sugar and water till they are quite soft; take out the stones, crack them, and put back the kernels; then line the inside of a mould (first decorated with split almonds) with the prunes, and keep on pouring in a little jelly (a small breakfast cupful of jelly or dissolved gelatine) to make the whole turn out. It may be made in a mould with a hole, which should be filled with whipped cream.

ASPARAGUS OMELETTE.— Boil a good-sized bunch of asparagus until tender; let it get cold; cut off the green part only and chop fine. Beat six eggs until very light; add two tablespoonfuls of thin, sweet cream, and the chopped asparagus. Have ready a frying pan with a tablespoonful of butter melted in it, but not smoking hot, and pour in the mixture. Shake from the bottom as it forms, and loosen from the pan with a broad knife. Fold over in the middle and turn on to a hot platter. Sprinkle over salt and pepper, and serve.—*Rural New Yorker.*

For the Maryland Farmer.

Sorting and Washing Wool.

Messrs. Editors :— As wool growers are often misled by quotations of wool in circulars from several markets, it will be to their advantage to receive some information in regard to such quotations, and it is also equally to the advantage of the wool trade of Baltimore to have these wrong impressions removed from the minds of the growers, as there is no better wool market in the country than is found in Baltimore if the wool is handled by competent commission merchants. We often hear the quotations from Baltimore compared unfavorably with those of some other markets, and growers decide that they will ship where they see the highest quotations ; and to give an example of such impressions I will state, that only a few days since, a grower wrote to me for sacks to ship his wool in, and wrote me that he expected the highest price, as all of his wool, he was sure, was good enough for combing wool. Now these quotations of combing wool had misled him, for the circular which had quoted combing wool to him, failed to inform that on an average, the best fleeces of smooth long wool do not turn out, in sorting, more than one-fourth of their weight in combing wool —the remainder falling by turns according to their grade into the places of clothing and other lower grades. The business of sorting wools is distinct from that of wool commission merchants, and belongs to the dealers who make it their special business and factories which have their own wool sorters to sort to advantage of working it up in their goods. And where a commission merchant undertakes to sort out their high-grade wools, the shipper will have to pay fully in shaded prices, for the work of the sorter and after taking out the better grades it must be fully noticed that the low-grade left will be sold comparatively low—making the average price on the whole fleece really less—and the only satisfactory way of selling for growers, is for the seller to grade the fleeces into grades of, *Prime*, *Good*, *Fair*, and *Poor*, and so making an average of high and low-grade wool contained in the fleeces, the value of the fleeces in each grade is easily arrived at.

It is advisable for growers to cut off all tags or other accumulation of dirt, as it does not do any good and saves disputes as to correct weight, for you may rest assured that a seller who does not open the fleeces so as to see and take out the tags, does not so examine and grade as to get best prices. It is advisable for shippers in packing to put long, short, merino, burry, greasy, damp, and sandy wools, separate, as much as practicable.

It is not advisable for growers to tub wash wool, as it loses in weight its equivalent to advance in price. As I am afraid that I have taken already as much space as this article is entitled to, I will try to follow it up in next issue on the disadvantages of tub washing wool.

Respectfully, &c.,
W. S. TEMPLE.

Our New Advertisements.

C. Aultman & Co., of Baltimore, advertise their Mowing Machine, called "Buckeye" as "doing better work than any other," and so pronounced by a committee after a competitive trial at the Experimental Farm, Chester county, Pa., where three other very noted machines competed.

B. C. Bibb & Co. This well known stove house in this city, has lately purchased the extensive Iron Foundry and Works at Port Deposit, Md.,(formerly carried on by Armstrong & Co.) with all the stock of Stoves, Ranges, &c. The castings of the late firm were always highly appreciated. The location of this foundry is in the close neighborhood of coal and iron, and now that the house of Bibb & Son have this foundry, they will be able to fill all orders with dispatch and at the lowest prices.

American Dryer. The Evaporating and Drying Machines of company should be more extensively brought into use by our fruit growers. They would seem admirably adapted to drying beets also.—They are for sale by Messrs. E. Whitman, Sons & Co., general agents for the company.

E. G. Smyzer, advertises all varieties of Iron Vases and other ornamental Iron Work. It is only to see the beautiful work executed by him to enlist admiration. Any person desirous to improve their grounds by such decorations, could not do better than give him a call.

Lawrence & Co., Brokers and Bankers, N. Y.

R. J. Halliday, Florist and Horticulturist. This popular and very large establishment, is one of the ornaments of Baltimore, and patronized extensively over the country.

A. & A. G. Alford, General Agents for the Remington Agricultural Co., which has a national reputation for their Plows, Cultivators, and a variety of Agricultural Implements, as also for their superior fire arms, type writers and sewing machines.

Gale Manufacturing Co., Albion, Mich. We ask attention to their advertisement of the "Gale Plow," which is claimed to be "the King of the Field." It must be a superior plow as it won at the Paris Exhibition the Gold Medal over 187 other competing plows.

Jacob Waltz, Pile Remedy.

Wm. Wirt Clarke, Plaster, Cements and English Petrifying Paint for damp walls and leaky cisterns.

Thos. Matthews & Son, an old and well-known lumber yard, where every variety of lumber can be found at reasonable rates.

Charles S. Taylor, Burlington, N. J., Short-horn Cattle and Cotswold Sheep, at reasonable prices.

Baltimore Coal Tar and Manuf'y Co. This Company get the tar that results from the making of gas by the Baltimore Gas Co.'s Works, and it is used by them to tar felt for roofing, and sell immense quantities for protecting or sheating the bottom of vessels. The Tarred Felt is much used to prevent leaking roofs and to preserve them, and by farmers for painting implements, gates, &c.

H. Magne & Sons, have a very large establishment in this city where Cedar Ware of all descriptions are made, and especially we call attention to what we consider their *ne plus ultra* of churns, for low cost and intrinsic value, which have been heretofore noticed in this Journal.

The Howe Sewing Machine Co. Sewing Machines to be had at greatly reduced prices. Howe is generally recognized as the first inventor of the sewing machine, and has made constant improvements, so that his machines have kept even place with the hundreds of others that have since flooded the market.

Geo. F. Sloan & Brother, well known Lumber Merchants of Baltimore.

We much regret that our space was filled before we had an opportunity to get in a notice of the Dairymen's Association meeting held in this city, and of the Jockey Club meeting at Pimlico; also the interesting reports of the Grange meetings lately held in our State, besides other very interesting articles of correspondents: One consolation is that each and all are good enough to keep for our next issue.

PUBLICATIONS RECEIVED.

Report of the Fruit Growers Association of the Province of Ontario, Canada, for 1878; with the annual report of the Etomological Society, of Ontario. We find these reports full of useful information.

"MEDICAL COMMON SENSE."—A copy of this work, by Dr. N. B. Wolfe, of Cincinnati, Ohio, has been received at this office. It advocates the treatment of diseases of the respiratory structure by the use of inhaled remedies. The author presents his views in a clear, "common sense" way; and it certainly seems plausible that remedies applied directly to the diseased part would be more efficacious than any others would be which had passed through the general circulation, and consequently been changed in their character before they reached the seat of the action.

The book is well-printed, and the Doctor has taken pains to make his subject matter so clear that it cannot fail to be understood. It would be of great service to any one who is suffering with Consumption, Asthma or Catarrh.

The treatise named is offered as a *free gift* to the afflicted. To secure a copy, send your name, post office address and six cents postage for mailing, to Dr. N. B. Wolfe, 146 Smitd Street, Cincinnati, Ohio.

Quarterly report of the Kansas State Board of Agriculture. Full of interesting statistical facts in regard to the resources of that State.

Additional facts and information in relation to the Catalpa Tree, its two varieties—E. E. Barney, Dayton, O., p. p. 36.

POULTRY PICTURES.—We have received from the publishers of the Poultry World, Hartford, Conn., six handsome chromos, representing the following: Golden Spangled Hamburgs; Golden Seabright Bantams; Silver Duckwing Games; Bearded Golden Polish; Malays; Colored Dorkings. The work is done in the best style and reflects credit upon the enterprising publishers.

D. M. Ferry & Co., Detriot, Mich., handsome catalogue of 144 pages, colored plates. Field, garden and flower seeds of all kinds, gardeners' tools and implements, ornaments, etc.

The *Monthly Journal* of the Virginia State Agricultural Society for May, besides its valuable agricultural articles, contains the official schedule of premiums to be awarded at the next State Fair, together with the rules and regulations for the same. This will be the 19th annual exhibition under the auspices of the society, and will be held at the Fair Grounds at Richmond for four days, commencing on Tuesday, October 28th, 1879. The list of premiums is extensive and liberal, and must attract many competitors.

CHUFAS.—Tolerably light land suits best for this crop. Make drills 2 or 2½ feet apart and drop tubers one foot in drill, soak them in water a day or two before planting, which should be about the same time as cotton. Plow and hoe to keep down grass and weeds—that is all the cultivation needed—*Southern Cultivator.*

WATER ICE.—One quart of water; juice of seven lemons; whites of six eggs, well beaten; make very sweet with sugar; mix thoroughly and freeze. This makes two quarts.